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Research Posters

527 Factors Influencing Medical Student Pursuit of Family Medicine

Bright Huo*; Wyatt MacNevin; Ryan Normore, MD, CCFP

Learning objective(s):

1. Explain the career-related factors influencing medical student career decisions surrounding Family Medicine
2. Explain the rotation-related factors influencing medical student career decisions surrounding Family Medicine

Description:

Context: In 2017, 15.3% of Canadians did not have a family physician. In 2020, only 32.4% of medical students pursued Family Medicine (FM) despite the national target of 50%. **Objective:** To identify why medical students elect for or against a career in family medicine (FM). **Design:** Mixed-methods study using chi-square, one-way ANOVA, and thematic analysis of narratives. A certificate of approval has been received from Dalhousie University Health Sciences Research Ethics Board (REB:2020-5058).

Setting: Dalhousie Medical School, Halifax, NS **Participants:** Graduating medical students (N = 43/116) were surveyed. 76.7% of participants pursued FM, 69.7% identified as female, 62.8% were aged 25-29 years, and 53.5% were raised in an urban location. **Main outcome measures:** The influence of student demographics, rotation-related, and career-related factors on decision to rank FM was assessed.

Narratives on factors influencing FM career decisions were analyzed. **Results:** Demographic factors including high parental education ($p=0.0845$) and desired community practice setting ($p=0.0549$) and career factors of scheduling flexibility ($p=0.0339$) and scope of practice ($p=0.0024$) trended toward motivating students to pursue FM. Factors of income potential ($p=0.0001$), status among colleagues ($p=0.0001$), perceptions of family/friends ($p=0.0001$), and research potential ($p=0.0001$) significantly dissuaded students from pursuing FM. One-way ANOVA [$F(8,189) = 7.039, p < 0.001$] determined that exposure to different areas of practice and positive preceptor interactions during rotations were found to increase the likelihood that students ranked FM, while low exposure to the diversity of FM dissuaded students. Thematic analysis identified that scope of practice (46.2%), long-term patient relationships (19.2%), and exposure (11.5%) were associated with student interest in family medicine. Students switched into FM due to work-life balance and career goals (44.4%), practice variety (38.9%), and manageable postgraduate training (16.7%). **Conclusion:** Knowledge factors impacting medical student desire to pursue FM may help optimize undergraduate medical education approaches to FM recruitment

419 Do Medical Students Have Family Doctors?

Gurleen Brar*, Olga Szafran, MHSA; Kimberley Duerksen, MSc

Learning objective(s):

1. To understand the care seeking behaviours and attitudes medical students have regarding primary care
2. To identify the perceived barriers medical students experience in obtaining care from a family physician
3. To be aware of the number of medical students currently unattached to a family physician

Description:

Introduction: The demands and stresses of medical education can affect the health and well-being of medical students, the Canadian Medical Association recommends that every medical student have a personal family physician (FP). As such, the purpose of this study was to determine how many medical students have a personal FP, barriers they face in obtaining care from a FP, their care seeking behaviours and attitudes toward primary care. **Methods:** This was a cross-sectional, anonymous questionnaire survey. Participants included all medical students in the classes of 2020-2023 at a western Canadian university. Survey questions addressed students': care seeking behaviors, barriers to obtaining care, attitudes toward primary care, and perceptions of their health status. The survey was conducted during mandatory class sessions during December 2019-January 2020. **Results:** 61.3% (n=396) of students attended mandatory sessions and 78.8% (n=312) completed the survey. Having a FP increased from 40% in first-year students to 72% in fourth-year students. Predominant reasons for not having a FP included not having time to find one (27%) and moving for medical school (26%). While 96.5% of students felt it extremely valuable to have a FP in general, only 55% felt it extremely valuable for themselves to have a personal FP. In general, 26.6% of medical students felt their overall health was good to extremely good but only 12.7% felt they did not need to see a FP in the past year. Reasons cited for forgoing to visit a FP included: not having time to go (47.8%); their FP's office hours were not compatible with their schedule (33.7%); and going to a walk-in doctor was more convenient (30.1%). **Discussion:** Medical students experience barriers to having a FP and accessing care from FPs which appear to be related to the time demands of being a student and relocating for medical school.

535 Addiction Week for and by Pre-Clerkship Medical Students

Robin Glicksman, MSc; Melissa Tigert; Hilary Stone, MSc; Ruby Alvi, MD, CCFP, FCFP, MHSc;
Peter Selby, MBBS, CCFP (AM), FCFP, dip ABAM; Azadeh Moaveni, MD, CCFP, FCFP;
Joyce Nyhof-Young, MSc, PhD

Learning objective(s):

1. Appreciate student motivations for program development and attendance
2. Discuss the importance of learning about addiction medicine in pre-clerkship

Description:

Context: A key issue affecting the proper management of substance use disorders (SUD) by physicians is the lack of teaching about and exposure to SUD in undergraduate medical school curricula (1). In

response, University of Toronto medical students created an extra-curricular Addiction Medicine Week for pre-clerkship medical students. **Objective/design:** We evaluated the intervention using quantitative pre- and post- program questionnaires addressing participants' knowledge, attitudes and behaviours surrounding SUD. **Setting:** The Department of Family and Community Medicine at University of Toronto. **Participants:** There were 13 female participants (8 first year and 5 second year medical students). The first year students had no prior formal addiction training in medical school. **Intervention:** A novel 5-day immersive curriculum was created, incorporating didactic and clinical experiences, and informed by curriculum objectives reflecting the CANMEDs roles. Didactic content included the biopsychosocial model of addiction and motivational interviewing. Clinical components included observerships in acute and long-term, inpatient and outpatient settings. The pilot program occurred June 3-7, 2019. **Findings:** After the program, 85% of participants agreed they had adequate exposure to physician role models in addiction medicine, compared to 8% before. An increased proportion of participants also felt comfortable interacting with a patient with SUD (92.3% from 30.8%), felt they had the ability to make a difference in these patients' lives (100% from 38.5%), recognized their own biases (38.5% from 7.7%), and understood the institutional barriers to care faced by these patients (100% from 53.4%). **Conclusion:** Our successful pilot program will be repeated, as it resulted in greater knowledge and comfort around managing SUDs and students will be better prepared for clerkship and beyond. We are promoting nation-wide program implementation through the Canadian Federation of Medical Students to prepare the next generation of physicians to provide more appropriate care for patients with SUD.

548 Family Medicine Representation in Undergraduate Pre-clerkship Medical Education

Francis Diaz *, MOT; Anita Ens, PhD; Sasha Thiem, MD; Amanda Condon, MD

Learning objective(s):

1. Evaluate the representation, or lack thereof, of family medicine in pre-clerkship medical education
2. Identify ways to improve family medicine representation in pre-clerkship medical education

Description:

Context: The College of Family Physicians of Canada presented the Patient's Medical Home model in 2011 and subsequent update in 2019 as its hope for Canadian family medicine's future. The model emphasizes team-based, patient-centred, continuous, comprehensive and accessible primary care across Canada. Across the country, Patient's Medical Homes are becoming more common. **Objective:** This project explored the degree to which family medicine and its latest models are represented within undergraduate pre-clerkship medical education. **Design:** Curriculum evaluation. As per Article 2.5 of TCPS 2, this project does not require ethics approval. **Methods:** Available clinical cases used for small group sessions and assigned studies during the 2018-2019 academic year at the University of Manitoba were retrieved. Cases were analyzed for care provider, patient age, type of clinical case, location, setting, referral source, learners, technology, interprofessionalism, continuity, and patient-centredness. Using stratified random sampling, 50 cases (6%) were reviewed by four researchers to discuss classification and analysis for data dependability and rigor. Agreement was reached through group consensus. **Results:** There were 844 cases reviewed with 827 cases included in the analysis. Of these, 47% were from Year 1 and 53% from Year 2. Family physicians were identified in 13% of cases. Majority of cases did not identify a care provider (78%), case setting (45%), case location (91%), a referral source

(94%), other interprofessional team members (92%), community resources (99%), learners (95%), use of technology (98%), continuity of care (79%) and patient-centredness (87%). **Conclusion:** Multiple opportunities exist to better represent modern care delivery including, but not limited to, specifying the care provider involved; emphasizing intra- and inter-professionalism; utilizing community resources and technology during patient encounters; and highlighting continuity of care and patient-centredness. These changes, which can have a significant impact on student learning and perspectives, can be done with minimal case reconstruction.

450 Covid-19 : Contribution des apprenant-MD à la pandémie

Phillipe Simon, MD, PhD; Éric Dubuc, MD, MSc, CCMF

Objectifs d'apprentissage :

1. Identifier les contributions apportées par les apprenant-MD à l'effort anti-covid
2. Mesurer les contributions apportées par les apprenant-MD à l'effort anti-covid

Description :

La pandémie de SARS-CoV de 2020 a profondément affecté toutes les sphères de la société Canadienne. Aux premières lignes, le système de santé a dû s'adapter avec une rapidité jamais vue en temps de paix. L'augmentation de la demande de service à tous les niveaux du système a eu un impact majeur sur l'éducation médicale et la génération d'effectifs médicaux. Une approche non-conventionnelle pour augmenter la capacité du système de santé a été l'utilisation des apprenants-MD (étudiants pré-clinique, externes et résidents). Selon leur niveau académique, les apprenants-MD possèdent des notions théoriques et pratiques plus ou moins avancées ainsi qu'une capacité à travailler sous supervision variable. Sélectionnés dans un programme extrêmement contingenté, la grande majorité des apprenants-MD ont dû démontrer des capacités académiques avancées. Ils constituent donc une ressource qui a le potentiel d'être mise à contribution en situation de crise. Cette étude descriptive a deux objectifs principaux : 1. Identifier les défis rencontrés dans l'utilisations des apprenants-MD dans l'effort anti-covid. 2. Identifier et mesurer les contributions apportées par les apprenant-MD à l'effort anti-covid. Cette étude est conçue sur une approche holistique pour obtenir les informations nécessaires de toutes les sources accessibles. Une recherche sur les banques de données (Pubmed, Medline, etc) et ressources publiques sera effectuée pour mesurer la contribution et les impacts des apprenants-MD. De plus, des entrevues semi-structurées avec les joueurs clefs (faculté, associations, professionnels, directions) viendront compléter l'analyse. Les résultats de cette étude pourront permettre d'évaluer la contribution des apprenants-MD à la réponse à la pandémie et servir à l'élaboration de protocoles utilisables dans de futures urgences sanitaires. Identifier les défis rencontrés dans l'utilisations des apprenants-MD dans l'effort anti-covid.

126 Field Notes: Factors impacting residents' learning in Manitoba

Nicole Zaki; Teresa Cavett, MD, CCFP, FCFP, MEd; Gayle Halas, PhD

Learning objective(s):

1. Identify individual and environmental barriers to residents' learning and propose strategies to address them

Description:

Context: Field notes (FNs) are used in Family Medicine (FM) residency programs to foster reflective learning and facilitate formative assessment. Through analysis of the dimensions of clinical encounters, residents assess their strengths and weaknesses and develop action plans to effect a change in practice. **Objective:** This study explored the use of FNs in the University of Manitoba's FM residency program five years after their implementation. **Design/setting/participants:** This multi-method study examined 520 FNs from 16 recent graduates from the University of Manitoba FM Residency Program. Quantitative analysis (frequencies and means) enabled descriptions and comparisons between residency training sites. Four themes emerged from inductive content analysis highlighting common ideas reflected upon. A certificate of approval has been granted by the Health Research Ethics Board at the University of Manitoba. **Results:** Residents displayed cyclical variation in the generation of FNs, with peaks coinciding with the start of core FM rotations. The most frequently described Priority Topics were Skin Disorders, Infections, Depression, and pain management. All but 8 of the 99 Priority Topics (addressing complex psychosocial issues) were captured in this data set. Few FNs addressed the domains of Care of First Nations, Inuit, and Metis; Care of the Vulnerable and Underserved; and Behavioural Medicine and the CanMEDS-FM roles of FM – Procedural Skill, Leader/Manager, and Professional. Four themes (Patient-Centered Care, Patient Safety, Achieving Balance, and Confidence) were identified from qualitative analysis of residents' narrative notes. **Conclusions:** Vygotsky's Sociocultural Theory of Cognitive Development was proposed as a lens through which to examine factors influencing resident learning. Residents' discomfort with certain topics may be reflected in their avoidance of reflecting upon certain competencies in FNs thus impacting skill acquisition. Further research should explore factors influencing residents' selection of FN topics and how to best assist residents in becoming competent, confident practitioners.

440 Resident and Preceptor Perceptions of Workplace-Based Assessment

Tara McGregor*, MD, MSc, CCFP; Arlan Walsh, MD; Mary Martin, MSc; Nancy Dalgarno, PhD; Karen Schultz, MD, CCFP; Brent Wolfrom, MD, CCFP

Learning objective(s):

1. Identify FM resident and preceptor perceptions of WBA for learning
2. Describe resident and preceptor satisfaction with WBA
3. Compare FM resident and preceptor perceptions of optimal quantity of WBA for learning

Description:

Objective: Explore perceptions of Family Medicine (FM) residents and preceptors on the quantity and quality of workplace-based assessment (WBA) for resident learning. **Design:** Exploratory online survey study of FM residents and preceptors using a Dillman approach. Data analyzed using descriptive statistics and t-tests ($\alpha=0.05$). **Setting:** Four distributed sites of a FM residency program in Eastern Ontario. **Participants:** Currently enrolled FM residents (n=163) and preceptors (n=173). **Main outcome measures:** Number of WBA written (preceptors) and received (residents), satisfaction with quantity and quality of WBA, optimal number of WBA for learning, differences between residents and preceptors and between residents by year of study. **Results:** Response rates were 27.2% (preceptors) and 22.7% (residents). Approximately half (52.9%) of preceptors and most (91.4%) residents reported

writing/receiving fewer WBA than the recommended 1 WBA per half-day of supervision. Overall, 61.7% of preceptors and 77.8% of residents were satisfied with the frequency of WBAs written/received. When asked about optimal frequency, 58.8% of preceptors, 70.0% of year-2, but only 35.7% of year-1 residents believed it should be fewer than recommended. Overall, 19.1% of preceptors and 46.0% of year-2 residents agreed that the optimal frequency of WBA differs based on year of study. Year-2 residents were significantly more likely to prefer fewer WBA with higher quality feedback compared to year-1 residents ($p=0.017$). Overall, residents were significantly more likely than preceptors to agree that too much feedback undermines the resident's autonomy ($p = 0.011$). **Conclusions:** Overwhelmingly, FM residents receive less WBA than recommended, however most were satisfied with this. Over half of preceptors do not provide WBA at the recommended frequency, and perceptions were split regarding optimal frequency. Some evidence in support of providing fewer WBA for year-2 residents was found. Further investigation is required to determine the optimal frequency of WBA for learning.

518 Learn Don't Burn: An interactive medical residency boardgame

Ashleigh Vallee, MD, MA; Su Lin, MD

Learning objective(s):

1. To become more familiar with the factors contributing to resident burnout
2. To participate in an interactive approach to burnout and wellness

Description:

Context: Burnout in residency is a major concern for programs across Canada. Burnout is usually defined as a triad of depersonalization, emotional fatigue, and a reduced sense of accomplishment. However, there is a growing body of research suggesting that burnout is much more complex. **Objective:** Our project aims to shed light on the elements of residency experience that place trainees at increased risk of burnout, while also illuminating effective ways to combat these stressors. Using an interactive boardgame model, we encourage residents, preceptors, and program administrators to reflect on and respond to this critical issue. **Design:** Our data collection and analysis were performed using keyword searches in the PubMed database, followed by a systematic review of the literature. Our boardgame is a competitive with a single winner, involving fixed turn order, drafting of cards, an interruption mechanism, and a race to the finish, designed in accordance with game theory principles. This project does not require REB approval according to the policies of the UBC Office of Research Ethics. **Setting:** Victoria Family Medicine Residency Program. **Participants:** N/A **Intervention:** N/A **Main outcome measures:** A search of Pubmed was performed using keywords "resident," "burnout," "depression," and "suicide," which yielded 16 results. A second search of PubMed was then performed with keywords "resident," "resilience," "medicine," and "burnout," which yielded 42 results. Following this, a selection of papers was reviewed and used to generate lists of burnout and resilience factors. **Results/findings:** Based on a review of the literature, we generated a list of eight key burnout factors, including: sleep deprivation, unsupportive staff, financial stress, social isolation, providing front line care, poor work-life balance, burden of administrative work, and lack of routine healthcare. These factors were used to design boardgame "burnout scenarios," which aimed to recreate stressful environments for players. **Conclusion:** Despite increasing public awareness about the prevalence of resident burnout, there is a relative paucity of practical suggestions to mitigate these risks. Our aim is to address this gap by developing an interactive boardgame that not only summarizes and delivers information on burnout and

wellness to players, but also enables players to better understand the resident-perspective by stepping into our shoes (so to speak).

421 Teaching Electronic Medical Record Data Discipline To Trainees

Noah Crampton*, MD, CCFP; Michelle Greiver, MD, CCFP, MSc, FCFP; Nicole Woods, PhD; Alexander Singer, MB BAO BCh, CCFP; Sharon Domb, MD, CCFP, FCFP; Matthew Orava, MD, CCFP; Aviv Shachak, PhD

Learning objective(s):

1. Understand the merits of and concerns with educating learners about EMR data discipline
2. Describe how to derive learning objectives, content and instructional format for an informatics-based educational intervention
3. Understand the advantages and disadvantages with teaching EMR data discipline using a discovery learning approach

Description:

Background: Evidence suggests that patients with high electronic medical record (EMR) data quality also have better care. However, clinicians are not instructed in data discipline, which is the process to ensure high quality EMR data. Medical training bodies are increasingly requiring this be instructed, but educators are unsure how to do so. **Methods:** We developed an educational intervention on data discipline for family medicine residents by cross-validating thematic findings from a need's assessment, consisting of a literature review, focus groups with EMR data quality experts, think-aloud sessions with trainees, and education theory. Thereafter, in 3 teaching units, we administered the intervention to 33 residents, and then compared the effect on learning using two different instructional methods (exploratory learning versus didactic teaching only). We also ascertained residents' opinions of this subject and of the intervention itself through a survey. **Results:** Two learning objectives for the intervention emerged: to instill a conceptual understanding of EMR data quality and to ensure a procedural understanding of documenting patient profile elements consistently. Four components of the session's format, eleven components of the didactic presentation's content, and three components of the exploratory learning's design were determined. Regarding performance on the intervention's post-test, the didactic group had a score of 27.237 ± 5.536 (M \pm SD) and the exploratory group had a score of 25.133 ± 6.479 out of 37, which were statistically equivalent by factorial ANOVA. The ANOVA found statistically significant differences for residency year and teaching site only. Likert-score results showed self-reported improvement in knowledge of data discipline. Nine themes were distilled from participants' surveys and reflected their desire to learn this subject and make it a mandatory lesson. **Conclusion:** EMR data discipline is becoming increasingly important for clinical quality improvement. Our study presents an effective teaching session on this subject that could be embedded in family medicine curricula.

439 Exploring Faculty Readiness to Teach and Assess Leadership

Brent Wolfrom*, MD, CCFP; Colleen Grady, DBA; Lynn Roberts; Han Han, PhD; Karen Schultz, MD, CCFP, FCFP; Nancy Dalgarno, PhD; Matt Simpson, MD, CCFP, MSc, CD;

Learning objective(s):

1. List two reasons why physicians lack confidence in assessing leadership in residents
2. Assess their own approach to teaching and/or assessing leadership

Description:

Context: Family Physicians are frontline leaders. Faculty are well positioned to influence residents' leadership skill development. However, some faculty may not view themselves as a leader, nor feel prepared to teach or assess leadership in a residency training program. **Objective:** To understand preceptors' leadership experiences, explore how they teach and assess leadership skills in residency, and examine their readiness to teach and assess leadership skills. **Design:** Mixed-methods, concurrent nested. **Setting:** Department of Family Medicine of an Ontario university and affiliated academic and community practices. **Participants:** Family physicians supervising family medicine residents. **Data collection/analysis:** An online survey investigated preceptors' leadership roles and styles, and confidence in teaching and assessing leadership skills. Semi-structured interviews explored leadership experiences and methods to teach and assess leadership. Descriptive statistics and Chi-Square tests were performed to analyse survey data. Both deductive and inductive approaches were used to analyse interviews. **Findings:** Fifty participants completed the survey, 12 of whom were interviewed. A total of 62% participants held formal leadership positions, 64% had leadership training and learned through both successful and unsuccessful experience. Most participants (72%) used a consultative or enabling leadership style (coach, transformative, participative), although autocratic leadership was deemed necessary in some situation (surgery and emergency). Most participants taught leadership skills through integrating experiential learning, mentoring, and didactic sessions to teach basic concepts. 81% participants were willing to teach leadership skills, and their confidence in teaching was significantly higher than assessing leadership skills (45%, 36%, $p=0.00$). Reasons for this gap included a lack of faculty training, no clear definition of leadership skills, and perceived lack of assessment tools. **Conclusion:** Most participants had leadership experiences and were willing to teach leadership skills, but felt unprepared to do so. Departmental supports are needed to enhance faculty capacity through faculty development, clarify leadership curriculum, and introduce practical assessment tools.

452 Préparer les patients aux consultations sans rendez-vous

Selsabil-Anfel Bouziane; Marie-Eve Lavoie, DtP, PhD; Marie-Thérèse Lussier*, MD, FCMF, MSc

Objectifs d'apprentissage :

1. Explorer l'utilisation de la fiche de préparation des patients à la consultation sans rendez-vous
2. Déterminer l'appréciation de la fiche de préparation par les patients et les médecins

Description :

Contexte : L'outil Web Discutons Santé (DS) a été conçu pour aider les patients à préparer leurs visites médicales et ainsi rendre plus efficace la communication médecin de famille-patient. Puisque l'utilisation de DS s'avère difficile au sans rendez-vous, une fiche de préparation à la consultation (FPC) en format papier a été créée et prétestée auprès de patients partenaires du projet. **Objectifs :** Cette étude vise à documenter l'utilisation de la FPC par les patients ayant consulté en clinique sans rendez-

vous. **Méthodologie** : Site: Un GMF-U de Laval (Québec). **Devis/Design**: Étude prospective observationnelle exploratoire. **Instrument**: La FPC comprend 17 questions courtes et simples portant sur les aspects biomédicaux (ex. caractéristiques du problème) et sur l'expérience du patient en lien avec le motif de consultation. **Procédure**: Du 6 janvier au 6 août 2019, les patients consultant à la clinique sans rendez-vous ont été invités à remplir la FPC avant leur consultation et à la partager avec leur médecin. **Mesures**: 1) le taux de réponse et la répartition relative des réponses; 2) les relations entre les motifs de consultations, le degré d'inquiétude rapportée, les attentes, le degré d'inconfort et les perturbations au quotidien. **Résultats** : L'analyse de 677 FPC révèle que les patients délaissent en général une à deux questions sur 17, décrivent majoritairement leur motif de consultation par des symptômes (70%) et ont une (45%) ou deux (36%) attentes liées à la consultation. **Conclusion** : Cette FPC constitue une alternative intéressante à l'outil Web DS et pourrait améliorer la communication médecin de famille-patient.

498 Prioritizing Coordination of Primary Healthcare

Vaidehi Misra, BHSc; Kimia Sedig, BHSc; David R. Dixon, MD, MCISc(FM); Shannon L. Sibbald*, MSc, PhD

Learning objective(s):

1. Identify settings which would benefit from increased care coordination
2. Plan and implement strategies that improve care coordination in their organization
3. Identify and mitigate barriers to coordination in their organization

Description:

Context: In Canada, family medicine has acted as a foundation for multiple avenues of health system improvement, but support has been lacking in the coordination of care between healthcare sectors. The impact of poor care coordination on patients' quality of care, access to care, and quality of life, cannot be ignored. **Objective**: This study explores the implementation of an innovative coordination improvement model called the Primary Care Connections (PCC) in a clinic under a care team. The knowledge and insights gained from this study can act as a resource for other healthcare organizations that are pursuing care coordination. **Design**: Semi-structured interviews. **Setting**: Southwestern Ontario **Participants**: Members of the clinic who implemented the PCC model. **Findings/discussion**: We identified three successes and three challenges associated with implementation of the PCC model. Successes associated with implementation of the PCC model relate to the relationship between healthcare providers and patients, communication, and the standard of care. Challenges included relationship dynamics within the clinic, sustainability, and lack of appropriate evaluation metrics. Additionally, the case identifies three essential elements for the application of the PCC by other clinics: time-management and communication, bridging silos, and navigational skills. **Conclusion**: This is a concrete example of a care coordination strategy in action. The PCC demonstrates that the experience of care coordination can be improved by bringing it into the clinical setting and through communication within and across sectors, leveraging resources, and streamlining organizational structures. PCC can be adapted by other healthcare clinics as part of the ongoing efforts towards integrated care. The lessons learned can act as a resource for clinics pursuing similar quality improvement.

479 Implementing and Evaluating eConsult Manitoba

Learning objective(s):

1. Describe the implementation of eConsult Manitoba and benefit in having electronic consultation in Manitoba

Description:

Context: Limited access to specialist care is a major barrier in Canada's health care system. BASE eConsult Manitoba (MB) is an asynchronous web based platform designed to provide an alternative to in person specialty visits that allows PCPs to ask non-urgent patient specific clinical questions. **Objective:** To implement eConsult services in Manitoba and evaluate quantitative and qualitative outcomes. **Design:** Retrospective study of BASE eConsultMB usage to date. **Participants:** Primary care and Specialist Providers registered to use BASE eConsultMB. Currently there are 222 PCPs and 48 Specialty Services on BASE eConsultMB; the number of participants continues to rise on a monthly basis as eConsult Manitoba continues to grow, adding new PCPs and Specialty services. **Intervention:** BASE eConsultMB implementation and analysis of usage data collected monthly since the launch in December 2017. **Main outcome measures:** Total eConsults/month and cumulative volume of eConsults to date; number of FP's and NPs utilizing service in total and per health care region; number of specialty services available, most frequently consulted specialties provincially and regionally, response times, and results of mandatory PCP survey. **Results:** As of April 1, 2020, 1325 eConsults have been sent. eConsult Manitoba is available in all regions of Manitoba and parts of Nunavut. The top three specialties on eConsult MB are Dermatology, Hematology, and Cardiology. Results of the PCP survey to date show that 53% of eConsults completed have avoided the need for an in-person visit. Survey data has consistently demonstrated high levels of user satisfaction and learning by PCPs. **Conclusions:** BASE eConsultMB has been successfully implemented and provides improved access to specialist advice that is highly valued by its users. The service continues to grow and has the potential to be an integral part of a learning health care system in Manitoba.

478 Interdisciplinary Shoulder Care: A novel triaging model

Teresa DeFreitas, MD, CCFP (SEM); Ann-Marie Przyslupski, MSc;
Constance Lebrun, MDCM, MPE, CCFP (SEM), FCFP

Learning objective(s):

1. Teach and discuss our results about interdisciplinary care for shoulder pain
2. Teach and discuss our results about surgeon triaging of shoulder referrals

Description:

Objective: To evaluate if surgical referral triaging of shoulder injuries by a surgeon into interdisciplinary surgical or non-surgical care demonstrates reduced surgical wait times. To assess if an interdisciplinary same-day team approach of an orthopaedic surgeon or sport and exercise medicine physician plus a physiotherapist (SURGPT; SEMPT) contributes to improved patient function regarding shoulder pain. **Design:** Prospective Survey Research, Chart Review **Setting:** Glen Sather Sports Medicine Clinic (Edmonton, AB) **Participants:** New English-speaking patients (≤ 18 years) referred to a Shoulder Clinic

(SURGPT/SEMPPT) for shoulder pain (05/29/2017–01/31/2019; n=275). **Main outcome measure(s):** Age, sex, referral-to-appointment time, referral-to-surgery time, previous treatments, previous shoulder surgeries, imaging, medications, SEMPT/SURGPT team diagnosis and treatment plan, WORC/WOSI/DASH scores. **Results/findings:** Our orthopaedic triaging model noted no significant differences between SEMPT and SURGPT referral wait-times ($p < 0.14$; SEMPT (109.8 days, $n=73$), SURGPT (133.8 days, $n=202$)). An average surgical wait time of 128.8 days was observed after orthopaedic consult. Twelve SEM-triaged patients (16.4%) were referred back to an orthopaedic surgeon. No significant differences were observed between SURGPT and SEMPT at any of the follow-up periods. Shoulder instability scores (WOSI) were significantly reduced at the 6-month period ($p < 0.00064$) for SURGPT patients only. WOSI scores between surgical waitlist patients (55.35 ± 24.55 , $n=43$) and patients who have received surgery (68.84 ± 20.56 , $n=6$) did not differ ($p=0.21$). **Conclusion:** Family doctors continue to refer non-surgical shoulder problems to orthopaedic surgeons. Clinical diagnostic care pathways for non-surgical shoulder pain are available but under-utilized. We report overall success of our collaborative shoulder team care model in reducing shoulder pain within 6-months for SURGPT patients with shoulder instability. Our triaging model currently does not appear to reduce clinical referral or surgical wait-times.

418 Improving Communication Strategies Between HIV Health Care Providers

Kate Peiyin Zhang, MD; Ann Stewart, MD, MSc, CCFP, FCFP; Soo Chan Carusone, PhD

Learning objective(s):

1. Identify the unique health, social and psychological needs of HIV + patients
2. Determine the current deficiencies in health care models which serve patients living with HIV/AIDs
3. Identify strategies to improve communication between HIV primary care physicians and community care providers

Description:

Context: The health-related consequences of HIV are becoming increasingly complex. Furthermore, HIV patients also have unique social and psychological needs. To support this, Casey House has recently implemented a community-based comprehensive multidisciplinary Day Health Program (DHP). Effective coordination between primary care and community outpatient services is important to improve the care of people living with HIV/AIDS. **Objective:** Improve communication strategies between HIV primary care physicians and community care providers to structure an outpatient care model that best meets the needs of PHA. **Design:** Online survey on current communication challenges, an in-person focus group at Casey House to identify potential solutions **Setting:** St Michael's Hospital Family Health Team, Casey House Day Health Program **Participants:** HIV primary care physicians at St Michael's Hospital, Casey House's Day Health Program's health professionals **Main outcome measures:** 1. Identify current and future HIV shared care model communication issues 2. Identify solutions to facilitate appropriate communication based on providers' guidance **Results:** 31 participants answered the online survey. The most common reasons for referral to DHP were psychosocial reasons (7) and to facilitate resources (6). The top communication challenges identified were: 1) Lack of education of providers on the services offered by DHP 2) Unclear intake criteria for which patients are prioritized. The strategies identified to overcome communication barriers were: 1) Promotion of DHP's services among providers and patients,

2) Explanation of the clinical activities offered 3) Clear definition of the admission criteria and referral process. **Conclusion:** Further changes in DHP's communication with the HIV primary care providers are necessary to achieve better access and referrals of vulnerable patients. New approaches are required to coordinate multidisciplinary care of PHA and enhance the access to community services, such as coordinating care plan among providers, facilitating transition in care, and developing care plans by involving the powerful voice of PHA.

460 Patient Recall of Discharge Instructions: a QI study

Emma Glaser*, MD, MSc; Meera Kotecha, MD; Alexa Ehlebracht, BSc; Samuel Montplaisir, PhD; Marie-Thérèse Lussier, MD, MSc, FCFP

Learning objective(s):

1. Describe patients' recall of discharge instructions in urgent care
2. Evaluate the impact of a teach-back training on patient recall
3. Describe trainee charting of discharge instructions

Description:

Context: Patients' recall of their discussions with health care providers is often poor. Remembering discharge instructions, understanding treatments and when to re-consult improves treatment outcome in an urgent care setting. The "teach-back" communication technique increases patient recall of discharge instructions. Residents receive little formal training in how to deliver discharge instructions or about the teach-back technique. **Objectives:** To improve patients' immediate recall of discharge instructions from Urgent Care, when they receive instructions from residents trained in using the teach-back technique. **Design:** This is a quality improvement study with a cross-sectional pre-post design, done in the context of a FM resident QI project. **Setting:** Urgent care clinic in an academic family medicine centre. **Participants:** Trainees (residents and nurse practitioners) and all patients seeking medical attention. **Intervention:** During clinic, trainees received a brief communication training on the teach-back technique. **Main outcome:** Patients' recall of discharge instructions (diagnosis, non-pharmacological management, pharmacological management, follow up, reasons to return) collected through a structured questionnaire and compared to chart documentation. **Results:** 58 patients were recruited, 27 in the control (C) and 38 in the teach-back (TB) group. There was no difference in overall recall of discharge instructions between groups (TB: 85% correct recall, 95% CI [80-90] vs C: 84% correct recall, 95% CI [80-88%]). Return instructions and non-pharmacological treatments were not documented in over a third of consultations. **Conclusion:** Recall of discharge instructions was high among patients attending urgent care. A brief teach-back training was unsuccessful in improving recall. Trainee charting of discharge instructions can be optimized. Limitations of the study include not measuring communication objectively and no guarantee the intervention was applied. A future PDSA cycle should build on these findings to improve trainee written and oral communication of discharge instructions.

488 Transitional Care in Heart Failure Management

Katrina Leong; Gayle Halas, PhD

Learning objective(s):

1. Understand the experiences and needs of HF patients from hospital back to primary care
2. Explore elements of patient readiness for community-based HF care

Description:

Background: Heart failure (HF) is a complex medical condition whose prevalence is increasing among Canadians each year. It often results in recurrent hospital readmission, especially within the first 30 days of initial discharge. Many stable, low-risk HF patients can be managed in primary care community settings, however there is yet to be a clear and coordinated pathway that allows for seamless provider transitions in HF care. Furthermore, the needs and preferences of HF patients and caregivers should be considered to allow for patient-centred community care. **Methods:** A total of 14 participants were included in this qualitative study. 12 semi-structured interviews were conducted with 11 participants discharged from HF clinic, and 3 participant caregivers. Their experiences and perspectives were explored in-depth. **Findings:** From the interviews, it was found that the participants faced emotional, social, and physical challenges as they return to the community. However, in many cases, they were able to overcome and adjust to these changes. Participants described two important key themes in this study: (1) Communication and Information Exchange, and (2) Support. **Conclusion:** With the emergence of these themes, future focus group research can explore these aspects of care further. It is also suggestive that HF-specialized clinicians and primary care providers should continue to consider these themes when arranging HF interventions and transitional care plans.

504 Time Motion Examination of Emergency Physician Workflow

Zaka Zia*; Edward Feng; Nicholas Cornell, MD; Catherine Tong, MD

Learning objective(s):

1. Examine the time task breakdown over the course of an emergency physician shift
2. Recognize areas of emergency physician workflow suitable for streamlining

Description:

Growing scrutiny to improve Emergency Department (ED) wait times have resulted in efforts to increase efficiency and maximize patient throughput via systems improvements. Few studies have examined efficiency improvements from the perspective of Emergency Physician (EP) workflow. This study investigates areas of efficiency improvement from the EP perspective by examining EP workflow in a two phased observational time-motion study. In this initial phase, the distribution of time and activities of EPs were dissected to identify potential sources for streamlining to maximize physician productivity. A second phase will be repeated in Fall 2020, 1 year after EHR implementation to assess EHR impact of EP workflow. An observational time-motion study was conducted at a community hospital in Ontario. An observer was paired with an EP for an 8-hour shift, to a total of 14 shifts. Nine task categories were measured concurrently with a stopwatch application on a tablet, along with the number of interruptions experienced by the EP. Means of each category were calculated and converted to percentages, representing the amount of time per 8 hour shift dedicated to each activity. Fourteen shifts were observed, accounting for 112 hours of observation. EP's time was allocated amongst the following categories: direct patient interaction (40.8%), documentation (27.1%), reviewing patient results (18.4%), communicating with ED staff (7.63%), personal activities (5.7%), writing orders (5.1%), communicating with consultants (3.3%), teaching (1.7%) and medical information searches (1.3%). On average, EPs

experienced 15.8 interruptions over an 8-hour shift. In a paper charting system, direct patient interaction accounts for the largest timeshare over the course of a given shift. The next largest categories, documentation and reviewing patient data, both represent areas of potential streamlining via clerical improvements. Detailed measurements of EP activities have proven feasible with potential for future insight into the impact of EHR's on EP workflow.

486 **Barriers to Accessing Primary-care Among Nepalese Immigrant Women**

Rudra Dahal; Kamala Adhikari; Bishnu Bajgain; Kalpana Thapa Bajgain; Tanvir C Turin. Chowdhury, MBBS

Learning objective(s):

1. Understand the challenges faced by immigrant women
2. Look at the challenges through solution oriented way
3. Community engaged health promotion

Description:

Background: Canadian immigrant populations come from several ethno-geographical backgrounds. These populations exhibit differences in their culture and health practices related to disease and disease pre-disposition that influence how, when, and why individuals seek healthcare. Though Canada has a universal health care system, new immigrants, especially women, face several challenges in accessing primary healthcare (PHC) services. This qualitative research was conducted among a sample of Nepalese immigrant women to explore their perceived barriers to PHC access and share results broadly to relevant stakeholders including healthcare providers and policy makers to inform the feasible approaches for improved PHC access. **Methods:** We conducted community-engaged research to explore the barriers that Nepalese immigrant women encounter while accessing PHC in Calgary, Alberta, Canada. **Data collection/analysis:** A total of 6 focus group discussions (FGD) were conducted among 34 participants (each FGD consists of 5-7 participants) in their preferred language, Nepali or English. Demographic information was collected prior to each focus group. The transcriptions were coded and analyzed thematically. **Results:** The focus groups highlighted long wait time as an important barrier in accessing PHC services. Long wait at emergency room, difficulties to access family doctors during the sick time, slow referral process, long wait at the clinic even after making an appointment, daily chores, and work impacted their access to PHC. Moreover, English language incompetency was another important barrier that impeded effective communication between physicians and immigrant women patients, thus, the quality of care was impacted. No access to medical records for walk-in doctors, insufficient lab/diagnostic services, lack of urgent care, and unfamiliarity about Canadian healthcare system were some other barriers emerged from the participants. **Conclusions:** Accessible primary healthcare is important for the health of immigrant populations. It is important to recognize the extent of barriers to effectively improve access to primary healthcare.

456 **Missed Appointments in a Northern Quebec Cree Community**

Charles Berdnikoff; Yasna Golyari; Kenjey Chan, MD, CCFP

Learning objective(s):

1. Describe no-show rates to doctor's appointments and laboratory appointments in a Northern Quebec Cree Community

Description:

Context: In the North American population, missed appointments (no-shows) are known to be a common occurrence with an estimated rate of 27%. Although studies have identified Native patients as having a higher no-show rate, no studies describe the rate of no-shows in the Quebec Northern Cree population. **Objective:** The main purpose of this quality improvement project is to describe the missed appointment rates for doctor's appointments and laboratory appointments in a Northern Quebec Cree community, compare these rates to the general population and propose and implement interventions.

Design: Retrospective data was collected on the number of shows and no-shows to booked doctor's appointments for all patients and specifically for patients with chronic kidney disease (CKD) from July 2018 to July 2019. In addition, prospective qualitative data was collected on shows for CKD patients and no-shows to laboratory appointments over July 2019. **Results:** The overall no-show rate to booked doctor's appointments was 28.5%, and 21.8% for patients with CKD, which were not significantly higher than that of the general North American population. The rate of no-show for laboratory appointments was 45.3%. Based on questionnaires given to patients, the most common reasons for no shows to laboratory appointments and to doctor's appointments with CKD patients were forgetfulness, not fasting before a planned laboratory test, transportation issues and being out of town. **Conclusion:** Overall, the rate of missed appointments to family doctor's appointments in a Northern Quebec Cree community is similar to that of the general population. Our main intervention was modifying the laboratory booking system by pre-booking dates for laboratory tests and leaving a written reminder with the appointment date to the patient. Our intervention targeted the laboratory appointments as they had the highest rate of missed appointments.

424 Healthcare Utilization Among Adults in Rural/Urban Areas

Kirsten Clark*, MD, CCFP; Verena Menec, PhD; Robert Tate, PhD; Denise Cloutier, PhD; Nancy Newall, PhD; Megan O'Connell, PhD; Philip St. John, MD, CCFP

Learning objective(s)

1. Describe the prevalence of healthcare service use in rural and urban areas
2. Examine rural-urban differences in healthcare service use

Description:

Identify sociodemographic factors associated with access to healthcare services in rural and urban areas

Objective: To determine the prevalence of healthcare service use (physician visits, emergency department use, and hospitalizations) in rural areas and examine rural-urban differences. **Design:**

Secondary analysis of cross-sectional data from a population-based prospective cohort study, the Canadian Longitudinal Study on Aging (CLSA). **Setting:** Ongoing population-based prospective cohort study across Canada including remote areas, rural areas, small towns, and cities. **Participants:** Community dwelling adults aged 45-85 years old from the Tracking cohort of the CLSA (N = 21, 241).

Main outcome measures: Self-reported family physician and specialist visits, emergency department visits, and hospitalizations within the previous 12 months in rural and urban regions. **Methods:** Rurality

was classified based on the definitions from the CLSA sampling frame and similar to the 2006 census. Rural versus mixed versus peri-urban versus urban areas were compared. Univariate and bivariate analyses were performed on data from the “tracking cohort” of the CLSA, chi square tests were used for categorical variables. Logistic regression models were created for the main outcome measures. **Results:** Those living in rural and mixed areas were less likely to have seen a family physician (86.6% and 88.9% versus 89.4%, $p = 0.002$) or a specialist physician (43.4% and 39.5% versus 48.2%, $p < 0.0001$) compared to urban areas. Those living in rural and peri-urban areas were more likely to visit an emergency department compared to urban areas (23.7% and 25.9% versus 20%, $p < 0.0001$). These differences persisted after adjusting for various sociodemographic and health-related variables. There were no rural-urban differences in hospitalizations. **Conclusion:** Rural-urban differences were found in visits to family physicians, specialists, and emergency departments. Such information may be helpful in prioritizing and targeting healthcare service delivery.

474 Inflammatory Mediated Immune Disease and Psychiatric Illness

R.A. Marrie, MD, PhD, FRCPC; C.A. Hitchon, MD, FRCPC; R. Walld, MSc; S.B. Patten, MD, PhD, FRCPC; J.M. Bolton, MD, FRCPC; J. Sareen, MD, FRCPC; A. Singer*, MB BAO, BCh, CCFP; L.M. Lisa, PhD, R. El-Gabalawy, PhD; L.A. Graff, PhD; A. Katz, MBChB, MSc, CCFP; C.N. Bernstein, MD, FRCPC

Learning objective(s):

1. Describe impacts of inflammatory mediated immune diseases and psychiatric illness on health outcomes

Description:

Objective: To evaluate the rates impact of (IMID) specifically, Multiple Sclerosis, Inflammatory Bowel Disease and Rheumatoid Arthritis in combination with psychiatric illness on health outcomes. **Design:** Multiple population-based administrative health data analyses from Manitoba, Canada. **Participants:** This study evaluated all persons identified with an IMID between 1989 to 2012 compared with matched cohorts from the general population. **Main outcome measures:** Over the course of 5 years this CIHR funded team study has published over 24 studies that explore various aspects of the interaction between IMID and psychiatric illness. **Results:** The burden of these particular comorbidities has been intricately described. Having an IMID not only puts patients at greater risk of having psychiatric illness but is associated with increased health care utilization. The team has also evaluated interventions for screening for mental illness in patients with IMID and the impact of these conditions on a range of health outcomes. Findings most relevant to family physicians found by this research team will be summarized and presented. **Conclusion:** Patients with IMID are at increased risk of psychiatric illness and face many challenges. A deeper understanding of how these particular multi-morbidities impact patients at the population level is essential for family physicians who aim to holistically manage individuals rather than single diseases.

560 Harm Reduction Practices in Campbell River, BC

Stephanie Vanner*, MD, MSc; Michael Weersink, MD; C. Sarai Racey, PhD; Heather Yule, PhD

Learning objective(s):

1. Identify knowledge gaps in harm reduction practices for opiate use disorder among primary care physicians
2. Recognize barriers to providing harm reduction interventions for primary care providers in Campbell River, BC

Description:

Objective: Opiate use disorder and its related harm is a significant problem in Campbell River, B.C. The aim of this study is to assess the knowledge, attitudes, barriers and willingness to providing take home naloxone (THN), opioid agonist therapy (OAT) and overdose prevention services (OPS) interventions among primary care physicians in Campbell River, B.C. This study hopes to inform future projects by local community groups to improve access and uptake of these harm reduction interventions. **Design:** Cross sectional anonymous online survey. **Setting:** Campbell River and District. **Study participants:** Qualifying primary care physicians who are members of Campbell River and District Division of Family Practice. **Main outcome measures:** The primary outcome measure is physician willingness to engage in a harm reduction approach for people who use opiates. Secondary outcome measures were confidence, responsibility, knowledge of addictions theory, perceptions, barriers and future intentions to provide harm reduction interventions. **Results:** 45% of physicians responded to the survey (27/60) and of those 66.7% were willing to engage in harm reduction. Physicians who were willing to engage in harm reduction were significantly more confident ($p=0.03$) and felt more responsibility ($p=0.003$) to provide harm reduction than those who were less willing. However, there were no significant differences between awareness about local harm reduction resources, perceptions about people who use substances or intentions about future clinic-based harm reduction programs. **Conclusions:** Overall, the results and respondent comments suggest that the majority of physicians are willing to engage in harm reduction, but lack an understanding of practical aspects of harm reduction implementation and theory. Future studies could be directed at awareness of local harm reduction resources, OAT and naloxone training sessions and education around harm reduction theory.

501 SPIDER: A reflexive approach for safer prescribing

Marie-Thérèse Lussier*, MD, MSc, FCMF; Michelle Greiver, MD, CCFP, FCFP; Simone Dahrouge, PhD; Brigitte Vachon, PhD; Elisabeth Martin, MSc; Arnaud Duhoux, PhD; Justin Turner, PharmD, PhD; Marie-Pascale Pomey, MD; Matthew Menear, PhD; Aude Motulsky, PhD; Yoanna Skrobik, MD

Learning objective(s):

1. Assess the feasibility of deprescribing potentially inappropriate prescriptions (PIP) in elders
2. Improve reflexive approach in primary care practice based on data, evidence and research

Description:

Aim: To assess the feasibility of deprescribing potentially inappropriate prescriptions (PIP) in elders with polypharmacy, using a Structured Process Informed by Data, Evidence and Research (SPIDER) approach. **Background:** Safer prescribing in elders improves quality of life and reduces undesired effects. At least four classes of medications are eligible to deprescription in elders. **Design:** Observational pilot study. **Sites:** Four primary care practices (PCPs) located in Laval (Quebec). **Target population:** Patients aged ≥ 65 y., taking ≥ 10 active drugs including at least one PIP (benzodiazepine, proton pump inhibitor, long-

acting sulfonylurea or antipsychotic). **Intervention:** At each PCP, interdisciplinary groups of family physicians (FP), nurses, pharmacists, site managers, practice facilitators, and patients participated in two COMPAS+ reflective practice workshops, targeting polypharmacy and deprescribing. Medication data extracted from their EMR using CPCSSN algorithms, before and 6 months after the intervention, were provided. A practice facilitator helped the collaboratives analyse their data, identify care gaps and their potential causes and develop specific action plans. **Results:** Three of the four participating sites succeeded in setting up the SPIDER approach in their practices within the planned timeframe. Reported barriers to SPIDER implementation were: time required for medication review by providers; encounter complexity; provider motivation; and sustainability. Of the ≥ 65 y. patient panel, 30% met inclusion criteria. Of these, 83% were initially found to have a PIP. SPIDER approach reduced proportion of total patients who met the inclusion criteria by at least 13.89% to 25.27% in the different sites. **Conclusion:** SPIDER is promising in terms of feasibility and efficiency. A randomised clinical trial using the SPIDER approach in 5 Canadian primary care practice-based research networks is now underway.

429 Assessment of Iron Prescribing in Ambulatory Care

Sean Meredith*, Pharm D, CD; Janice Ma, Pharm D; Stephanie Lovering, Pharm D; Brent Wolfrom, MD, CCFP

Learning objective(s):

1. Explore laboratory values used to initiate iron therapy

Description:

Context: Multiple documents exist for management of iron deficiency anemia (IDA) in the ambulatory care setting, however none were prepared systematically using GRADE methodology. **Objective:** To demonstrate that clinicians are using various laboratory thresholds to initiate iron therapy leading to inconsistent clinical practices. **Design:** Retrospective chart review. Data was extracted from the organization's electronic health record in accordance with a research protocol approved by the Queen's University Health Sciences Research Ethics Board. **Setting:** Accredited Canadian ambulatory care organization. **Participants:** Clinical records of all registered patients between the ages of 18-60 years old were reviewed for an incident iron prescription between 1 July 2013 and 30 June 2015, and a minimum of 12 months' follow-up. Overall, 613 patients met the inclusion criteria and were included in the analysis. **Main outcome measures:** Presence/absence of laboratory tests including measures of hemoglobin, ferritin and mean corpuscular volume (MCV) from one month before to one month after the incident iron prescription. **Findings:** Almost one third of incident iron prescriptions were written in the absence of hemoglobin and MCV (197 patients, 32.1%) testing. Ferritin was not measured at baseline for 372 patients (60.7%). Only 135 (22.0%) and 11 (1.8%) patients had baseline hemoglobin and MCV values indicative of IDA respectively, as defined in Alberta's best practice document. Iron was prescribed to 93 (15.2%), 55 (9.0%) and 93 (15.2%) patients with ferritin levels of less than 15 mcg/L, between 15-29 mcg/L and greater than or equal to 30 mcg/L, respectively. **Conclusion:** Iron supplementation is frequently initiated in the absence of diagnostic laboratory testing. Iron prescribing patterns are diverse when laboratory values are obtained. Development of clinical practice guidelines using GRADE methodology may increase the consistency of iron prescribing practices in ambulatory care settings.

464 Ontario Epidemiologic Indicators For Hepatitis B Birth Vaccination

Mia J. Biondi*, NP-PHC, PhD; Alex Marchand-Austin, MSc; Kirby Cronin, MPH; Natasha Nanwa, PhD; Vithusha Ravirajan, MPH; Erin Mandel; Lee W. Goneau, PhD; Tony Mazzulli, MD; Hemant Shah, MD, MScCH; Camelia Capraru, MD; Harry L.A. Janssen, MD, PhD; Beate Sander, RN, PhD; Jordan J. Feld, MD, MPH

Learning objective(s):

1. Present the uptake of prenatal hepatitis B screening and prevalence in Ontario
2. Demonstrate the lack of follow-up testing done for pregnant women diagnosed with hepatitis B
3. Describe Canadian-born children in Ontario who acquire hepatitis B prior to adolescent vaccination

Description:

Background: Ontario is one of six Canadian provinces that immunize adolescents rather than neonates/infants for hepatitis B virus (HBV), despite World Health Organization recommendations for universal birth dose vaccination. One rationale for not vaccinating at birth is that universal prenatal screening and related interventions prevent vertical transmission. The aim of our study was to evaluate prenatal HBV screening and determine the number of Canadian-born children in Ontario diagnosed with HBV prior to adolescent vaccination. **Methods:** Data were extracted from Public Health Ontario Laboratories, BORN Ontario (Ontario's pregnancy, birth and childhood registry), and the administrative database, ICES. Prenatal hepatitis B surface antigen (HBsAg) screening uptake and prevalence were assessed from 2012-2016; with determination of subsequent hepatitis B e antigen (HBeAg) and HBV DNA testing and positivity rates. Rates were compared to HIV screening, by age and region. The number of HBV-positive children ages 0-11 from 2003-2013 was measured. **Results:** Over 5 years, prenatal HBsAg screening was performed in 92.7% of women; with an HBsAg prevalence of 0.63%. Among those HBsAg+, HBeAg and HBV DNA were subsequently completed in 13.2% and 37.9% of women, respectively. HBsAg positivity increased with age, peaking at >45 years at 3.0%. The north Toronto region had the highest overall prevalence of 1.51%, whereas northern Ontario had the lowest. Of Canadian-born children ages 0-11, 139 tested positive for HBV of 23759 children tested. **Conclusion:** Prenatal HBV screening is not universal and subsequent HBV evaluation is very poor, limiting optimal intervention before and after delivery to prevent transmission. Ontario-born children diagnosed with HBV prior to age 12 highlight the failure of the adolescent HBV vaccination strategy. These data support adopting birth-dose HBV vaccination in Ontario, reflex HBeAg and HBV DNA testing, and improved data collection for HBIG and vaccine coverage to ensure HBV transmission is minimized in the province.

480 Pediatric Blood Pressure Assessment and Hypertension Recognition

Linda Ding, MD; Alexander Singer, MB BAO, CCFP; Leanne Kosowan*, MSc; Allison Dart, MD, MSc, FRCPC

Learning objective(s):

1. Describe trends in evaluating pediatric blood pressure and resulting hypertension recognition in primary care

Description:

Objective: To evaluate the rates of pediatric blood pressure assessment and hypertension recognition in primary care settings in Canada. **Design:** This retrospective cohort study assessed electronic medical record data from the Canadian Primary Care Sentinel Surveillance Network. **Participants:** Children aged 3 to 18 with at least one clinic encounter between 2011 and 2017. **Main objective:** Blood pressure thresholds were defined using the National Heart, Lung, and Blood Institute (NHLBI) guideline. Hypertension was defined as having at least two age, sex and height adjusted blood pressures above the hypertension threshold (blood pressure >95th%ile). Elevated blood pressure was defined as having at least two blood pressures between 90 and 95%tile. Recognition was defined as a patient meeting the CPCSSN case definition for hypertension prior to aged 18 years. **Results:** Among the 378,002 pediatric patients, 33% had at least one blood pressure documented. Blood pressure was measured in 76% of well child visits (n=42,063). Factors associated with increased blood pressure screening included weight, comorbidities, social deprivation and urban residence. Overall prevalence of hypertension was 2% (n=715), of those, 5.6% (n=40) had recognized hypertension. Follow-up visits occurred within six months for 26% of children with elevated blood pressure, 57% of children with hypertension, and within one month for 7% of children with hypertension. **Conclusion:** Rates of hypertension screening and recognition are low, suggesting screening for pediatric hypertension should be a priority for dissemination and implementation interventions. This study suggest that not all children with elevated blood pressure or hypertension are recognized and appropriately followed in primary care settings.

383 L'outil d'aide à la décision, quel intérêt?

Chantale Pilon, PhD Éthiques

Objectifs d'apprentissage :

1. Démontrer l'intérêt de l'outil d'aide à la décision pour favoriser la pratique

Description :

L'objectif : Cette réflexion cherche à présenter les complications éthiques du partenariat qui travaillent les relations de soin et la manière dont le recours à des outils d'aide à la décision (OAD) pourraient influencer sur le comportement des soignants, réduire la pression qui pèse sur eux et améliorer la qualité des soins prodigués. **Résumé :** Si l'importance du processus de décision partagé (PDP) n'est plus à prouver, la recherche démontre qu'elle n'a pourtant pas préséance. Sa réalisation rencontre plusieurs défis liés notamment au contexte de la pratique clinique et à la complexité des rôles du patient ainsi que des professionnels. Un survol de la littérature permet d'identifier certaines de ces tensions.

Par exemple : Il démontre que les soignants demeurent la principale source d'information des patients mais, que la majorité d'entre eux ne disposent pas des informations adéquates pour faire des choix avisés et fournir un consentement éclairé. Il révèle que si les soignants semblent inconfortables avec l'implication des individus qui les consultent, les questions qui leurs sont adressées affectent néanmoins la qualité des informations qu'ils fournissent concernant les options de traitement. Dans le cadre de cette communication, notre attention se portera sur les enjeux éthiques rattachés aux bouleversements des approches traditionnelles en se centrant sur la transmission de connaissances objectives dans le cadre de la PDP. La participation accrue de l'utilisateur s'entend comme un bien de nature éthique mettant fin au paternalisme médical parce qu'il correspondrait au passage d'un rôle passif à un plus actif, respectant leur autonomie. Elle engage les soignants, qui doivent s'adapter au PDP, à élargir leur répertoire de compétences et à endosser de nouvelles formes d'identité éthique (celles de : facilitateur, collaborateur,

communiquant, navigateur). Des recherches soulignent que l'utilisation des outils d'aide à la décision peut favoriser l'impartialité de l'information diffusée et l'efficacité des communications.

511 Rehab Against the Clock: Outcomes in dialysis rehabilitation

Samantha Fernandes*, MD, MSc; Jordan Pelc, MD, MSc

Learning objective(s):

1. Describe the functional outcomes in dialysis rehabilitation inpatients
2. Describe the mortality in dialysis rehabilitation inpatients

Description:

Context: Individuals admitted to inpatient rehabilitation hospitals have a high risk of failure to progress with rehabilitation and high mortality. Dialysis patients likewise have high mortality, high rates of unmanaged symptoms and reduced quality of life. Research suggests high risk of unmet palliative needs in both populations. To our knowledge no studies have examined outcomes in dialysis rehabilitation inpatients. We sought to study outcomes in this population as a phase one quality improvement project to identify risk for unmet palliative needs. **Objective:** To determine the proportion of patients who make functional gains, are discharged home, or die as inpatients in a dialysis rehabilitation cohort. **Design:** We conducted a retrospective observational study on a cohort of dialysis patients admitted for rehabilitation. We performed manual chart reviews collecting data points including patient demographics, functional gains, final discharge destination, and death while admitted. Descriptive statistics were calculated for all variables collected. This project does not require REB approval according to the policies of Sinai Health System Research Ethics Board (REB) regarding QA/QI, program evaluation or medical education studies. **Setting:** Bridgepoint Active Healthcare, a 464-bed rehabilitation and complex care hospital in Toronto, Ontario. **Participants:** We examined a cohort of 63 inpatients. Individuals were considered eligible if they were admitted to Bridgepoint for rehabilitation between 2014 and 2018 and were receiving dialysis as inpatients. **Findings:** The mean age was 71.8 years (SD 11.55). Of the 63 patients identified, approximately half (52%) made functional gains. Only 54% of patients were discharged home and 33% were discharged to acute-care without readmission to Bridgepoint, likely suggesting death in hospital. 6.3% died at Bridgepoint. **Conclusion:** Only half of dialysis rehabilitation inpatients made functional gains, while a significant proportion likely died in hospital. These findings suggest a high risk for potentially unmet palliative needs in this population.

437 Employing Best Practices for a Genomics Education Program

June C. Carroll*, MD, CCFP, FCFP; Shawna Morrison, MS, CGC; Joanne A. Permaul, MA, CCRP; Judith Allanson, MB ChB, FRCPC, FCCMG

Learning objective(s):

1. Apply a program logic approach to the development, dissemination and evaluation of education program
2. Identify sources of genomic information useful for primary care practice

Description:

Context: Genomic medicine (GM) is increasingly used for diagnosis and risk prediction of complex disorders. Primary care providers (PCPs) are key to effective GM implementation however uptake has been slow. Efforts are needed to equip PCPs with knowledge and ongoing support. Genetics Education Canada – Knowledge Organization (GEC-KO) is an example of employing best practices for GM education. **Objective:** To describe a program logic approach to the development, dissemination and evaluation of a PCP genomics education program. **Design:** Grounded in adult learning theory, we employed a program logic model to map out GEC-KO's design, implementation and evaluation. This consisted of planning (needs assessment), development (curriculum, piloting, assessment), delivery and outcome measurement. Needs assessment determined PCPs' current involvement/confidence in GM, its clinical value, suggestions for practice integration, and resources and education required. Educational resources were developed and tested through a RCT and push-out mailing was evaluated using the Information Assessment Method. The GEC-KO team revised these resources and disseminated via the website www.geneticseducation.ca. A continuous cycle of development, implementation, evaluation and revision have informed GEC-KO products. REB approvals from Children's Hospital of Eastern Ontario (plus exemption for analytics) and Sinai Health System. **Main outcome:** Matomo analytics were used to assess site use comparing two time intervals Jan 1 2014- Dec 31 2016 and Jan 1, 2017-Dec 31, 2019. **Results:** Needs assessment showed low confidence in most GM competencies, especially newer areas e.g. direct-to-consumer testing. Genetics clinic contacts, summaries of genetic disorders and referral/testing guidelines were highly rated. GEC-KO resources were shown to increase confidence in core GM competencies and most indicated practice would be improved after reading GEC-KO resources. Website analytics demonstrated increased users from 37,177 to 87,053, pageviews from 70,550 to 137,084. **Conclusion:** Using a program logic model has enabled GEC-KO to develop and evaluate genomic educational resources for PCPs.

442 Mitigating The Hidden Curriculum in Medical Education - Work-in-progress

Maya Amar*; Sarah Wildeman; Megan Chu; Jillian Howden; April Kam, MD, MScPH, FRCPC

Learning objective(s):

1. Identify gaps in current research describing the hidden curriculum and interventions to mitigate its effect
2. Compare evidence-based interventions to mitigate the negative effects of the hidden curriculum in medical education

Description:

Context: The 'hidden curriculum' is defined as lessons captured by trainees outside of the classroom and formal educational objectives. The negative impact of the hidden curriculum on medical learners is well documented in medical education literature; evidence-based interventions to decrease its impact are limited. **Objective:** The authors systematically reviewed the literature to consolidate interventions proposed to increase awareness about and/or decrease the negative impact of the hidden curriculum on medical education. The objective was to inform medical practitioners and administrators about evidence-based educational interventions and to identify gaps in knowledge to inform future research. **Design:** A literature search was conducted using five databases (CINAHL, EMBASE, Ovid MEDLINE, Cochrane Database of Systematic Reviews and ERIC). Hand searches were also conducted. Search terms fell into two categories: hidden curriculum, and medical education. Inclusion criteria were English

articles published before July 2018 that addressed medical learners and proposed an intervention. Studies meeting inclusion criteria were evaluated with the JBI Critical Appraisal Checklist for Qualitative Research or the Medical Education Research Study Quality Instrument (MERSQI) for quantitative research. A narrative synthesis approach will be used to identify key themes. This project did not require REB approval according to the policies of Hamilton Integrated Research Ethics Board (HiREB). **Results:** 6585 articles were identified in the initial literature search. 58 met inclusion criteria for final review. The overall quality of the studies was poor, 14 studies implemented and evaluated proposed interventions while the other 44 only discussed potential interventions. Data extraction and analysis have yet to be performed. **Conclusion:** This study has identified 58 articles suggesting or implementing interventions to mitigate the negative effect of the hidden curriculum. When complete, this study will assess the relative effectiveness of these interventions and synthesize key themes to inform future educational interventions and research.

441 Antibiotic Stewardship in Family Medicine Residency - Work-in-progress

Sarah Wildeman*; Jaehoon Kim; Catherine Friedman, MD; Jasmine Liu, MD; William Tsang, MD; Stephanie Amoah; Jason Profetto, MD, MSc, CCFP

Learning objective(s):

1. Describe the factors that contribute to unnecessary antibiotic prescribing for URTIs among family medicine residents
2. Identify opportunities for educational intervention in family medicine residency to reduce unnecessary antibiotic prescription

Description:

Context: Antimicrobial resistance is a significant threat worldwide due to its economic, healthcare and societal costs. Despite antibiotic stewardship efforts, the literature suggests that there continues to be inappropriate antibiotic prescriptions in Ontario. Upper respiratory tract infections (URTIs) are a common presentation to family physicians; the majority of these infections are viral, yet antibiotics are not uncommonly prescribed. The factors that influence physician decision-making about prescribing antibiotics for such viral presentations may stem from their training as resident physicians. **Objective:** The primary objective was to evaluate factors that influence the decision-making process of family medicine residents when prescribing antibiotics to treat URTIs. The secondary goal was to identify opportunities for educational intervention to reduce such unnecessary antibiotic prescription. **Design:** Qualitative analysis of semi-structured interviews with family medicine residents was performed using a grounded theory methodology. Interviews included asking residents to describe a time that they prescribed antibiotics for a URTI. A Certificate of Approval has been received from Hamilton Integrated Research Ethics Board (HiREB) [#5848]. **Setting:** McMaster University and the greater Hamilton area. **Participants:** Five current family medicine residents (PGY-1 and PGY-2) at McMaster University were interviewed. Purposive interviewing will continue to achieve a representative sample and until theoretical saturation is reached. **Findings:** Initial themes (n=5) have indicated multiple contributing factors which can be organized into the broader categories of: clinic and supervisor culture, patient and caregiver characteristics, unique experiences of residents and societal or systems-based factors. Early analysis indicates that most provoking factors stem from patient-physician interaction (maintaining relationship, meeting expectations), rather than educational or cultural influences from staff and

colleagues. **Conclusion:** Preliminary results suggest a significant role of patient-physician interaction influencing inappropriate antibiotic prescribing, even during family medicine residency training. At its completion, these results may help identify key opportunities for educational intervention to reduce inappropriate antibiotic prescribing.

524 Motivations Behind Resident-Driven Field Note Assessment Completion - Work-in-progress

Vanessa Sheng*, BSc; Yousuf Ahmed, BMSc; Fok-Han Leung, MD, CCFP, FCFP, MHSc

Learning objective(s):

1. Explore the field note assessment tool and its current role in Family Medicine residency programs
2. Interpret salient beliefs held by residents and motivations for completion of field notes by preceptors/self

Description:

Context: In Family Medicine programs, field notes (FN) are a widely-used competency-based clinical assessment tool. Open-ended feedback on clinical encounters can help residents to develop actionable changes in their practice. Recently, residents were able to 1) initiate the field note process online, reducing the steps required for educator completion and/or 2) complete a narrative self-assessment.

Objective: To determine what motivates certain residents to complete more FNs than others. **Design:** This qualitative study of Family Medicine resident FNs will follow a grounded theory approach. In-depth semi-structured interviews will be conducted with 5-10 Family Medicine residents identified through purposive sampling strategies. Interviews will be recorded, transcribed, and coded by at least two independent coders. Constant comparative analysis will be used when coding and analyzing code groups for themes, which will be supported by group discussion and analytic memos. Conditional approval has been received from University of Toronto's Human Research Ethics Unit. **Setting:** Qualitative program evaluation of Family Medicine FNs in a medical school in a large, urban centre in Canada. **Participants:** Following a non-random purposive sampling strategy, in-depth interviews will be conducted with 10-20 Family Medicine residents. The sample size is justified for the purpose of formative research involving key stakeholders. **Main outcome measures:** Salient beliefs of residents in regards to the FN tool and completion by preceptors or self, including behavioural beliefs, normative beliefs, and beliefs of perceived control. **Expected results/findings:** It is hypothesized that behavioural, control, and normative beliefs all contribute to the completion, or lack thereof, of FNs. The findings may also highlight the perceived utility of FNs, as well as any barriers to completion. **Conclusion:** In identifying the motivations behind the completion of FNs, this assessment tool can be refined to meet the needs of residents and faculty to improve the competency-based curriculum.

496 Interest in Self-sampling for Cervical Cancer Screening - Work-in-progress

Roni Kraut*, MD, CCFP; Oksana Babenko, PhD

Learning objective(s):

1. Gain awareness of the option of self-sampling for cervical cancer screening

2. Appreciate the acceptability and preferability of self-sampling for cervical cancer screening
3. Identify factors associated with a preference for self-sampling

Description:

Context: Human papillomavirus (HPV) self-sampling is when a woman collects her own sample with a vaginal swab instead of a speculum examination performed by a clinician. Literature on HPV self-sampling has found it to be valid, cost effective, and the screening method preferred by women. It is part of the cervical cancer screening program in several countries, including the Netherlands, Australia, and Taiwan, but is not yet routinely available in Canada. Studies on HPV self-sampling in Canada have focused on the under screened segments of the population, and have found it to be well received and effective. However, it is unclear if Canadian women in general would prefer this option, and whether they are even aware of it. **Objective:** To determine the levels of awareness and interest in self-sampling, as well as factors associated with preference for self-sampling in a population of women affiliated with a primary care clinic in Edmonton, Alberta. **Design:** Cross-sectional. Women will complete an anonymous survey before their appointment at the primary care clinic. The survey is designed based on past research that assessed women's preference for self-sampling. Odds ratios will be calculated to determine if there are any significant associations between women's preference for self-sampling and factors, including: age, HPV knowledge, prior PAP experience, education level, country of birth, and ethnicity. Ethics approval is in progress. **Setting:** Family medicine clinic in Edmonton Alberta. **Participants:** Women between the ages of 25 and 69 attending the family medicine clinic. Up to 200 women are expected to be recruited. **Main outcome measures:** Percentage of women aware of self-sampling, percentage of women who prefer self-sampling, and factors associated with a preference for self-sampling. **Conclusion:** The results of this study have the potential to guide future screening guidelines and add to the knowledge of factors impacting preference for self-sampling.

497 Spread and Sustainability: Integrated, Team-Based COPD Care - Work-in-progress

Shannon L. Sibbald*, MSc, PhD; Vaidehi Misra, BHSc

Learning objective(s):

1. Identify whether their work setting(s) would benefit from integrated, team-based models of care
2. Plan strategies that would allow for the integration of team-based care in their organizational processes
3. Identify facilitators and barriers in their own context that impact integrated, team-based care

Description:

Context: In Canada, there is widespread agreement about the need for integrated models of team-based care. However, there is less agreement on supporting the scale-up and spread of successful models. We do not know which mechanisms are involved and there is limited empirical evidence to support this process in chronic disease management. **Objective:** We are studying the implementation, sustainability, and spread of an integrated model of team-based care, the Best Care COPD (BCC) program. **Design:** Our evaluation involves a mixed-methods case study design which is comprised of a diverse set of data collection methods including living documents, a survey, site visits, document analysis, and focus groups. **Setting:** Our study is set in southwestern Ontario within healthcare

organizations that have implemented the Best Care COPD (BCC) program. **Participants:** Healthcare providers involved in the delivery of the BCC program, and patients and their caregivers who are impacted by the program. **Main outcome measures:** The mechanisms of, and facilitators and barriers to the spread and sustainability of an integrated model of team-based care for patients with COPD.

Findings/discussion: Preliminary findings strongly support the BCC program's applicability in various chronic disease contexts. Data collected thus far has shown: (1) effective teams have a strong sense of direction and motivation (2) teams believe that their work is fulfilling, and they plan for implementation, spread, and sustainability early on (3) teams rely on strong and dynamic channels of communication within the team and with patients. Sustaining the impact of PCC requires sustained resources, positive relationships, and consistent monitoring of indicators. To support spread, models must be implemented with consideration for local contextual factors. **Conclusions:** This study explores the implementation, sustainability, and spread of integrated team-based care. This study provides practical knowledge and insights that support the application of integrated team-based care for chronic disease.

557 Identifying Knowledge Gaps of PCPs by Exploring eConsults - Work-in-progress

Courtney Bell-Minaker*, MD, MSc; Kelly Brown, MPH, ND, BSc;
Luis Oppenheimer, MD, PhD, FRCS(C), FACS; Laurie Ireland, MD, CCFP; Michael Polan, MD, CCFP;
Alexander Singer, MB BAO BCh, CCFP

Learning objective(s):

1. Identify that the eConsult platform has the ability to inform CPD

Description:

Context: Electronic consultation (eConsult) platforms allow primary care providers (PCP) to ask questions to specialists over secure online platforms. In Manitoba, BASETM eConsult was introduced in 2017. Exploring the questions asked by PCP and content of eConsults provides opportunities to identify gaps in knowledge PCP experience and optimize local continuing professional development (CPD).

Objectives: 1) Determine the range of question topics and question types that PCPs ask specialists using the BASETM eConsult Manitoba platform; 2) Use content analysis methods to categorize key topics identified within eConsult content; 3) Consolidate analysis and describe overall patterns of eConsult use to identify unperceived needs of PCP for future CPD offerings. **Design:** Question topics and question types are being classified using validated taxonomy tools. Content analysis methods will be used to categorize additional key topics identified within eConsult content. A preliminary analysis is being completed to gauge the scope of the project. Up to 20 eConsults from each selected specialty will be analyzed by one reviewer to establish and test an analysis template. The remainder of the project will be completed by teams of two reviewers. A certificate of approval has been received from the University of Manitoba Biomedical Research Ethics Board. **Setting/participants:** Between 2017 and May 27 2020, Manitoba BASETM eConsult has enrolled 222 PCPs (family physicians and nurse practitioners) from urban, rural and northern locations. Forty-nine specialties are available on the service and 1493 eConsults have been completed. This study will analyze consolidated reports from specialties with sufficient volume (>10). **Results:** This project is a work in progress with expected completion by July 1 2021. Preliminary analysis included 206 eConsults from 11 specialties. **Conclusion:** This research will contribute to the identification of gaps in knowledge that PCPs experience and will be vital to inform and improve local CPD offerings.

461 Connecting Families – Work in progress

Imaan Bayoumi, MD, MSc, FCFP; Mary Martin, MSc; Cornelia Borkhoff, PhD; Patricia Parkin, MD

Learning objective(s):

1. Describe the baseline characteristics of children and families enrolled in the Connecting Families pilot RCT
2. Describe changes in child emotional and behavioural health, parent stress and depression 6 months later

Description:

Context: Poverty has profound effects on child emotional and behavioural health, which in turn predict academic success and lifelong mental/physical health in preschool children. Many professional health organizations recommend that healthcare providers identify and address poverty, but little evidence exists regarding effective interventions. **Objective:** Evaluate the impact of structured review of financially related social needs and social service system navigation in low-income families of young children. **Design:** Pragmatic randomized control trial. Participants complete a set of surveys at baseline, 6-months and 12-months post randomization. Data analyzed using descriptive statistics. **Setting:** Primary care practices and the general community in Kingston, Ontario. **Participants:** Families of children age 2-5 years screening positive for the validated question “Do you ever have difficulty making ends meet at the end of the month?” **Intervention:** A structured review of financially related social needs and resources with a trained Community Support Worker, who helps families access benefits for which they are eligible, including forms completion, and advocacy as needed. **Main outcome measures:** Child emotional and behavioural health (Strengths and Difficulties questionnaire), parent stress and depression (Parent Stress Index, Patient Health Questionnaire), change in self-reported after-tax household income. **Results:** Data collection and analysis ongoing. To date, 33 are enrolled. At baseline, 60.6% of participants had total family income of < \$30 000 in the last tax year. Employment was 24.2% for mothers/parent 1 and 48.5% for fathers/parent 2. Food insecurity was observed in 78.1% of participants. Mean Total Difficulties SDQ scores was 12.2 (SD 5.5). **Conclusion:** Results from this research will fill a critical evidence gap regarding the impact of a poverty intervention on important child and parent health outcomes, and will establish the role of non-health care providers in linking health and social systems. Next steps include continuing enrollment and completing follow-up with existing participants.

434 Prevention of Error-Based Transfers (PoET) in Long-Term Care – Work in progress

Jill Oliver, PhD; Paula Chidwick, PhD; Pam Forsyth, MHSc; Nipa Chauhan, MHSc; Abe Hafid, MPH; Theresa Nitti, RPN; Erin Beaulieu, MPH; Dawn Elston, MA; Henry Siu*, MSc, MD, CCFP (COE)

Learning objective(s):

1. Participants will integrate information about consent-related errors, patient-centered goals and PoET implementation in long-term care

Description:

Objective: In Ontario, long-term care (LTC) residents are at risk of being transferred to hospitals for unwanted or non-beneficial treatments. The 'level of care' form, which is used in many LTC homes, does not align with Ontario's Health Care Consent Act and drives errors in healthcare decision-making. Prevention of Error-Based Transfers (PoET) is a quality improvement project with two aims: 1) align healthcare treatment with LTC resident wishes, values and beliefs, and 2) avoid repeated hospital transfers due to consent-based errors. With support from Health Canada, the PoET Southwest Spread Project (PSSP) will be implemented in LTC homes in Southwestern Ontario. **Design:** PSSP will be evaluated using a mixed method approach including a retrospective chart review, as well as focus groups and stakeholder engagement surveys. **Setting:** LTC homes in 2 Southern Ontario LHINs. **Participants:** LTC residents, substitute decision makers and staff will be invited to participate. **Intervention:** Two PoET Spread Leaders observe LTC home activities for one month and recommend consent-related change ideas to staff. **Main outcome measures:** Process and outcome measures are collected from participating LTC homes. Survey results are interpreted using Normalization Process Theory (NPT), a framework to evaluate complex healthcare interventions. **Results/findings:** LTC home residents (N=580) had a mean age of 83.8 (SD 11.0), 68.4% were female, 54.8% were widowed, and 64.8% spoke English. Residents had an average of 5.2 (SD 3.4) active chronic illnesses. Preliminary survey results suggest strong staff engagement with PSSP. Focus groups will provide further insight on PSSP's implementability and sustainability in LTC. **Conclusion:** PoET benefits both residents and staff in LTC. PoET previously demonstrated a reduction in repeated end-of-life hospital transfers in one hospital system in Ontario. Responses from LTC home staff indicate they are supportive and engaged in PoET. PSSP will continue spreading this positive innovation across Ontario's LTC sector.

FMF Posters

431 A Thematic Analysis of the CanMEDS Professional Role

Gill Katzevman; Jessica Ng; Jessica Marshall; Morgan Slater, PhD; Fok-Han Leung, MD, CCFP; Charlie Guiang*, MD CCFP FCFP

Learning objective(s):

1. Identify aspects of the CanMEDS Professional role with which residents struggle in postgraduate medical education

Description:

Context: Apart from critical patient safety incidents, the CanMEDS Professional role remains one of the most difficult roles to define and assess in medical education literature. Our study examines the use of frequent 'formative' written feedback in the family medicine postgraduate training environment – 'field notes' (FNs). **Objective:** To identify common themes in the CanMEDS Professional role, by examining FNs generated by resident preceptors. **Design:** A thematic analysis was conducted on FNs generated by resident preceptors in the Department of Family and Community Medicine (DFCM) at the University of Toronto (UofT) between October 2015 and October 2017. We focused on entries with evaluations of 'Below expectations'. Inductive codes were derived and applied to relevant comments. Codes were amalgamated into themes and code frequencies were measured. Finally, themes were mapped into

professional key competencies. A Certificate of Approval has been received from University of Toronto REB. **Setting:** Fourteen training sites affiliated with the UofT DFCM. **Participants:** UofT DFCM residents and preceptors. **Main outcome measures:** Using a thematic analysis, we aimed to identify aspects of the CanMEDS professional role that were associated with designation of “failure to meet expectations”. **Results:** 70 FN were analyzed. Three main themes emerged: lack of collegiality (48.6%), failure to adhere to standards of care/legal guidelines (24.3%) and lack of reflection/self learning (11.4%). Other themes identified were failure to maintain boundaries (7.1%), impact to patient care (4.2%), failure to maintain patient confidentiality (2.9%) and failure to self care (1.4%). **Conclusion:** This study highlights aspects of the CanMEDS professional role which contribute to “failure to meet expectations” - specifically: collegiality, adherence to standards of practice and legal guidelines, and reflection and self learning. Preceptors and family medicine training programs could focus on developing these specific skills.

544 Adapting the Physical Exam to Telemedicine

Jillian Conway*, MSc; Anita Weng*; Katarina Laketic; Tung Siu, MD, CCFP

Learning objective(s):

1. Demonstrate how adaptations of the physical exam to telemedicine can support clinical decision making

Description:

Context: Telemedicine has become an important tool in primary care settings, especially in light of the COVID-19 pandemic, but also when delivering care to patients in rural and remote areas. However, many traditional aspects of the physical exam are not amenable to telemedicine. **Objective:** This review presents components of the physical exam that can be performed over telemedicine by: 1) visual inspection, or 2) the patient themselves. The purpose is to demonstrate how adaptations of the traditional physical exam can add to the decision making process in certain clinical scenarios. This review is targeted towards medical students and residents. **Methods:** Three independent reviewers selected physical exam maneuvers amenable to telemedicine by conducting a full text review of the twelfth edition of the textbook Bates’ : A Complete Guide to Physical Examination and the Rational Clinical Exam series by JAMA Network. A literature review on PubMed was performed to identify the statistical significance of the selected physical exam maneuvers in assisting with diagnosis and clinical decision making. **Results/findings:** A visual inspection with the support of clear video and imaging can assist in the diagnosis and management of common diseases such as: dermatological lesions, hepatic disease, and heart failure. If patients are physically able, they may assist in the diagnosis of common musculoskeletal conditions, movement disorders, viral/bacterial conjunctivitis, urinary tract infections, heart failure, peripheral arterial disease, and more. Furthermore, visual inspection and certain physical maneuvers may identify the need for urgent medical care for patients with respiratory distress, peritonitis, nuchal rigidity, symptoms suggestive of a stroke or space-occupying lesions, and signs of hypoperfusion. **Conclusion:** Although history is paramount when assessing patients, we have summarized physical exam maneuvers amenable to telemedicine that can help guide the diagnosis and clinical decision making when in-person assessments are not feasible.

445 Addressing Burnout in Emergency Medicine - Work-in-progress

Learning objective(s):

1. Explore how burnout has been evaluated in emergency medicine settings
2. Compare the efficacy of burnout interventions
3. Differentiate between the different domains of burnout as assessed by validated screening tools

Description:

Context: The well-being of healthcare providers has become a growing concern across Canada in recent years. One dimension of well-being—burnout—has been identified as an issue that necessitates intervention. The implications of burnout extend to patient-care, as high levels of burnout have been associated with increases in medical errors and malpractice. Burnout is consistently reported the most in emergency medicine (EM) physicians compared to physicians in other specialties. Many institutions have implemented interventions in an attempt to decrease burnout, but to our knowledge, a comprehensive analysis of these interventions has not been conducted. **Objective:** To identify effective interventions that successfully reduced burnout among EM staff (physicians, residents, nurses). **Design:** Systematic review. A literature search was conducted using multiple electronic databases. English studies that investigated interventions on burnout in ED Staff (>50% of the sample being EM staff) using validated assessment tools (e.g. the Maslach Burnout Inventory or MBI) were included. Intervention studies with comparator groups were included. Two independent reviewers completed title and abstract screening, full-text screening, data abstraction, and risk of bias assessment. **Preliminary results:** Seven out of 2357 studies were eligible for final inclusion. The search yielded four pre- post-intervention trials, and three randomized controlled trials. The sample sizes of these studies ranged from 21–127. Interventions were heterogeneous and ranged from mindfulness training, group seminars, didactic sessions, multimedia resources, and attention-based training. Five of the seven studies used the MBI to quantify burnout, while others used the Copenhagen Burnout Inventory or the Professional Quality of Life measure. **Conclusion:** Although still a work in progress, we believe that this is the first systematic review that evaluates the utility of burnout intervention programs in EM staff. Through this research, we hope to identify what makes a burnout intervention effective so that we can establish guidelines for future intervention programs.

512 Appropriateness of Colorectal Cancer Screening in the Elderly

Zhou Fang*, MMus; Jérôme Williams; Roland Grad, MD, MSc, CCFP, FCFP

Learning objective(s):

1. Demonstrate a method for assessing appropriateness for colon cancer screening in the very elderly
2. Reflect on how to improve the appropriateness of patient selection for colon cancer screening

Description:

Context: Colorectal cancer is a leading cause of death. Despite a rising incidence of colon cancer with increasing age, the Canadian Task Force on Preventive Health Care recommends against screening after the age of 75. This weak recommendation is based on reduced life expectancy in the very elderly. A recommendation for cancer screening is inappropriate when, on balance, testing offers a greater probability of harm than benefit. However, for people whose life expectancy is estimated to be greater than 10 years, screening could be appropriate. **Objective:** To explore the extent to which screening for colon cancer is appropriately requested in primary care. **Study design:** Cross-sectional. **Dataset:** Data was obtained from the Electronic Medical Record of one academic medical centre in Canada.

Population: We identified all women 80-84 years of age who were followed at the centre and referred for a FIT by a Family Physician, from 2016-2020. Women under the care of Resident Physicians were excluded, as was FIT ordered for diagnosis. **Method:** We assessed appropriateness of the FIT screening request using a life expectancy calculator based on the Charlson Comorbidity Index. Any screening FIT requested for a woman aged 80 or older was deemed inappropriate when risk of death was estimated by the calculator as > 50% in 10 years. **Main outcome measures:** 99 FITs were requested for 83 women with an average age of 83 years. 41 of these were tests were for screening. Of these 41 FITs, 16 (39% [95% CI 24% – 54%]) were deemed to be inappropriate requests. **Conclusion:** Many women are inappropriately screened for colorectal cancer in advanced age. This finding raises the following question: What should be done to improve the appropriateness of patient selection for colon cancer screening?

471 Barriers in Accessing Mental Health Services for Refugees

Razawa Maroof; Rejina Kamrul*; Clara Rocha Michaels; Andrea Vasquez Camargo; Mamata Pandey

Learning objective(s):

1. Recognize the barriers for mental health care access in refugees
2. Detect three challenges from a care provider's perspective in refugee mental health care
3. Use the knowledge to improve care delivery for refugee patient

Description:

Objective: The aim was to explore barriers to mental health care access for patients with refugee status at Regina Community Clinic (RCC) in Regina, Saskatchewan Canada. **Design:** Qualitative study. **Setting:** Mental health among immigrants and refugees tends to decline with time in Canada. Adverse conditions experienced during pre-immigration period increase risk for mental health diagnosis among refugees. Previous retrospective study demonstrated 47% of individuals with refugee status at RCC had mental health diagnosis while only 29% accessed treatment. The study results helped identify barriers to mental healthcare for refugees. **Methods:** Two focus groups composed of participants with refugee status who received care at RCC in 2019 were interviewed. Group-1 consisted of adult women (n=20; ages 35 to 65) and group-2 young adults (n=18; ages 18 to 25). Healthcare providers (n=17) serving immigrants and refugees at the RCC were also interviewed individually. Interpretative phenomenology analysis was used to analyse the results. **Findings:** Participants' responses indicated that language barrier, lack of transportation, acculturative stress, economic conditions and discrimination limited their access to healthcare services. Young adults were found to have greater knowledge, acceptability and utilization of mental health services compared to the adult women group. However, both emphasized that family support, self-help strategies, engagement in cultural activities and spiritual care were paramount for

their mental health. Healthcare providers identified insufficient consultation time, lack of interpreters, privacy issues, cultural norms, stigma and lack of knowledge about pre-immigration factors as barriers to provide adequate care. All groups agreed that language barrier impaired effective provider-client communication, diagnostic procedures and treatment adherence. **Conclusion:** Culture influences individual's perceptions about mental health and mental health utilization. Language barriers can hinder access to available mental health services. **Impact:** These findings will be utilized to advocate for increased culturally responsive mental health services with provision of appropriately trained interpreters.

531 **CHANGE Adventure Camp Promotes Change Towards Healthier Habits**

Alice Yu*, BHSc; Morgan Haynes; Doug Klein, MD, FCFP; Darren Nichols, MD, CCFP

Learning objective(s):

1. Understand the effect that the CHANGE Adventure Camp has on healthy habit formation in children

Description:

Context: Canadian children are consuming unhealthy diets, growing up unable to cook and failing to meet recommended physical activity levels; these unhealthy lifestyle practices explain the growing prevalence of chronic diseases in the Canadian population. The CHANGE Adventure Camp seeks to address these issues through a week long camp that gives children the opportunity to gain knowledge and skills surrounding nutrition, meal preparation, and physical literacy. **Objective:** To determine the effect of the CHANGE Adventure Camp curriculum on the nutrition, meal preparation and physical activity habits of children. **Design:** Program evaluation. A Certificate of Approval has been received from the University of Alberta Health Research Ethics Board. **Setting:** The 2019 CHANGE Adventure Camp, based in the Edmonton area. **Participants:** Children aged 9-12 years that attended the 2019 CHANGE Adventure Camp and their parents/guardians were eligible to participate in the study. Forty-one children and thirty parents were included in this study. **Main outcome measures:** Change in participant knowledge, attitudes and behaviors surrounding the six camp curriculum themes: food labels, outdoor exercise, food marketing, balanced plate, mindful eating, and snacking. **Findings:** Compared to the start of camp, a greater proportion of children understood how to read food labels (87% end of camp vs 66% start of camp) at the end of camp and more intended to help cook at home, eat more home cooked meals, and eat more fruits and vegetables (70% vs 59%). At four weeks post camp, a greater proportion of children believed that exercise had an impact on health (96% post camp vs 81% at baseline), how they felt (83% vs 46%), and their academics (70% vs 49%), and that spending time in nature affected their health (83% vs 71%). **Conclusion:** The CHANGE intervention successfully promotes the development of healthy diet and exercise habits in children.

559 **Collaboration During Pandemics: COVID-19 medical student response team**

Morgan Haines*, BSc; Alec Yu; Zach Sagorin, BSc; Vivian Tsang; Geoffrey Ching; Devon Mitchell, MD; Mary Kestler, MD, FRCPC

Learning objective(s):

1. Identify mechanisms to mobilize medical students during a pandemic to meet community needs
2. List effective student-physician public health and physician support project collaborations

Description:

Objective: With the onset of the COVID-19 pandemic in British Columbia, medical students formed the BC COVID-19 Medical Student Response Team (MSRT) to support frontline physicians, public health agencies, and community members affected by the pandemic. **Design:** A central intake protocol was developed to capture both individual physician support requests (ie. childcare, essential non-clinical tasks) and physician-led projects (ie. supporting isolated older adults, performing rapid literature reviews) seeking medical student volunteers. Requests were screened for safety and appropriateness by an expert faculty advisor, and then triaged by a student leadership team within 48 hours. **Setting:** Across the University of British Columbia Faculty of Medicine's four distributed sites: Vancouver-Fraser, Victoria, Kelowna, and Prince George. **Results:** As of May 5, 2020, over 700 medical student volunteers signed up to support 58 project initiatives and 212 individual physician requests related to COVID-19. Approximately 28% of requests were from family physicians. Examples of projects relevant to the practice of family physicians include providing telephone outreach to isolated older adults, creating wellness resources for physician teams, and compiling individualized resource lists for rehabilitating patients. Public health initiatives have included staffing 8-11 phone lines, performing employee and public contact tracing, and supporting physician occupational health and safety programs. **Conclusion:** We propose a model for a medical student response team that is safe and valuable in supporting the efforts of family physicians during a pandemic. Family physicians efficiently connect medical students with relevant community and public health initiatives. The existing MSRT infrastructure in British Columbia can be reactivated to provide assistance should future need arise and similar entities can be created in other provinces to allow for rapid response.

17 Decision-Making Capacity Assessment Education

Lesley Charles*, MBChB, CCFP (COE); Jasneet Parmar, MBBS, MSc, MCFP (COE);
Suzette Brémault-Phillips, PhD; Tara Kilkenny; Melissa Johnson, MSc; Peter George Tian, MD, MPH, MSc;
Oksana Babenko, PhD; Bonnie Dobbs, PhD

Learning objective(s):

1. Recognize the importance of physician education on decision-making capacity assessments

Description:

Context: With an increasing elderly population, the number of persons with dementia and the number of persons needing decision-making capacity assessments will increase. However, many health care professionals do not feel ready to provide DMCA. Since 2006, we have provided DMCA workshops to allied healthcare professionals and, since 2013, to physicians. Physicians are offered a 3-hour workshop or 2-day training accredited by both the College of Family Physicians of Canada and the Royal College of Physicians and Surgeons of Canada. **Objective:** To evaluate the effectiveness of a 3-hour and a 2-day DMCA workshop on self-reported competencies. **Design:** Pretest posttest design. A certificate of approval has been received from Health Research Ethics Board, University of Alberta. **Participants:** 822 allied healthcare professionals and 281 physicians. **Settings:** DMCA Workshops for physicians and allied

healthcare professionals. **Outcome measures:** Pre- and post-workshop ratings on 15 competencies using a 4-point scale. **Results:** Ten 3-hour workshops were held in 2014-5, with 166 participants. Seven 2-day workshops were held in 2014-8, with 115 participants. There have been 822 recorded allied HCPs participants. Self-reported Competencies. The physicians' post-workshop ratings were higher (Sign test; $p < 0.001$) than pre-workshop ratings for all competencies. Five competencies had improved ratings from at least 80% of participants post-workshop: awareness of problem solving techniques, understanding of the concept of trigger, awareness of legislative acts, confidence in knowledge and skills, and awareness of a system of organization and documentation. Similar results were seen among allied healthcare professionals: an increase in ratings post-workshop. Also, participants agreed that they followed the Model's guiding principles (90%), used problem-solving (92%), understood discipline-specific roles (87%), and were confident in their knowledge of DMCA (75%) and pertinent legislation (72%). **Conclusion:** There is a need for DMCA training for physicians and allied healthcare professionals. The content and method of the workshops are effective.

543 Demographics and Attitudes Influencing Family Physician Acquisition

Manni Singh*, MD

Learning objective(s):

1. Identify demographic variables influencing family physician acquisition
2. Recognize Canadian attitudes influencing family physician acquisition
3. Integrate findings to inform public healthy policy

Description:

As Canadian society undergoes major institutional shifts in the delivery and funding of healthcare resources, they must wrestle with the competing demands of concerns regarding health provisions and fiscal responsibility. The present study examined self-report, archival data from the Government of Canada open data set regarding Canadians' Attitudes toward the Health Care System. Logistic regression analyses were performed with having a family doctor as the outcome variable. This study confirms that gender, age, and confidence in access to care contribute to differences in having a family physician among Canadians. These findings have broad implications for policy making, as they may guide future policies that promote these attitudinal/cognitive factors to increase healthcare seeking behaviors. In turn, these behaviours will result in greater implementation of preventative health measures that reduce burden of chronic disease and total healthcare dollars spent.

427 Depressive Symptoms in Rural Canadians - The CLSA

Philip St John*, MD; Robert Tate, PhD; Verena Menec, PhD; Nancy Newall, PhD; Denise Cloutier, PhD; Megan O'Connell, PhD

Learning objective(s):

1. State the risk of depressive symptoms in rural Canadians
2. State rural/urban differences in depressive symptoms
3. State risk factors for depressive symptoms in rural Canadians

Description:

Background: Features of rural areas may be conducive or detrimental to mental health, and previous studies on depression in rural areas have yielded conflicting results. **Objective:** To determine if there are differences in depressive symptoms between those living in rural and urban areas of Canada. **Methods:** We conducted a cross-sectional analysis of a prospective cohort study, which is as representative as possible of the Canadian population – the Tracking Cohort of the Canadian Longitudinal Study on Aging (CLSA). **Participants:** 21 241 adults aged 45 to 85. **Measures:** Rurality was measured using a similar definition to the census, and grouped as urban (N=11 772); peri-urban (N=2637); mixed (N=2125; postal codes with both rural and urban areas); and rural (N=4707). Depressive symptoms were measured using the 10 item Center for Epidemiological Studies – Depression (CES-D10). We considered age, gender, education, marital status, and disease states as potential confounding factors. **Analysis:** We constructed linear regression models using the CES-D10 as a continuous variable. **Results:** The adjusted beta coefficient was -0.24 (p=0.01) for rural participants, -0.17 (p=0.14) for peri-urban participants, and -0.30 (p=0.02) for participants in mixed regions compared to urban participants. Risk factors associated with depressive symptoms were similar in rural and urban regions. **Conclusions:** There are small differences in depressive symptoms amongst those living in rural and urban regions, but these differences are unlikely to be relevant at clinical or population levels.

521 Development and Evaluation of Mental Health Education in Underserved Community

Priya Dhir*; Amy Gajaria, MD

Learning objective(s):

1. Identify methods and barriers to implement culturally appropriate mental health education in a vulnerable population

Description:

Context: “Jane and Finch” is a broad term used to define a community in the Humber Review/Black Creek district of Toronto. 79% of people identify as a visible minority versus 51.5% in the rest of the city. According to the Ontario Marginalization Index, Jane Finch is in the most deprived 20% of areas in Ontario on measures of residential instability, material deprivation, income dependency, and ethnic concentration. Previous research conducted with racialized members in this community identified social and cultural perceptions and stigma deterring individuals from seeking mental health services.

Objective: Develop culturally appropriate mental health education at Black Creek Community Health Centre (BCCHC), a health centre focused on family and community health. **Design:** Five staff members at BCCHC completed audio-recorded semi-structured interviews which explored mental health topics likely to be relevant to clients of BCCHC. Interviews were transcribed and analyzed for common themes using descriptive analysis. **Setting/participants:** All data were collected with staff and clients at BCCHC. Physicians and allied staff at BCCHC were invited to participate in the study via email. Clients were informed about the mental health programming via email and newsletters. **Results:** This is a qualitative descriptive study. The theme of having programming that outlines the intersection between mental and physical health and the effects of trauma on mental health was common among staff interviewed. Subsequently, mental health programming emphasizing these themes was developed by a psychiatrist and delivered to clients at BCCHC. Out of 20 workshop participants, 10 completed the programming evaluation form. 92% of respondents felt that the programming met their needs, 100% felt that they

gained a better understanding of mental illness, learned about resources available in the community, and learned a new skill or approach they could use in their life. **Conclusions:** Results of the current study lend support for the justification and value of organizing culturally responsive mental health programming for this vulnerable community. Future work includes collaborating with community agencies to deliver additional specific mental health programming for children/youth in this area.

538 Development of an e-Module on LGBTQ2S+ Health

Casey Hicks, MD; Haleema Jaffer*, MD

Learning objective(s):

1. Recognize the value of comprehensive training for medical students on LGBTQ2S+ health

Description:

Context: Lesbian, gay, bisexual, transgender, queer, Two-Spirit, and other (LGBTQ2S+) people and communities are resilient, knowledgeable, and resourceful. They resist and persist despite experiencing compounding forms of violence that impact their well-being. If family physicians recognize the impact of systemic factors such as transphobia, homophobia, racism, and settler colonialism on an individual's health, they are better positioned to address health inequities. An e-module was created based on recommendations from a needs assessment on LGBTQ health content in the University of British Columbia's MD Undergraduate Program (UBC's MDUP) curriculum. **Objective:** To develop an e-module for medical students on health equity, gender, sexuality, and gender-affirming care that centres the voices and experiences of LGBTQ2S+ people. **Methods:** The e-module authors received grant funding through the UBC Teaching and Learning Enhancement Fund for video production, instructional design support, and compensation of content experts and LGBTQ2S+ participants. Instructional content including whiteboard-style videos and clinical vignettes were created by medical students. Five LGBTQ2S+ people were interviewed to create personal account videos that highlight what affirming care is and why it matters to them. Interspersed throughout the module are creative works by Indigenous and LGBTQ2S+ writers and scholars. The e-module introduces best practice guidelines and clinical resources. **Results:** An e-module titled Foundational Concepts for LGBTQ2S+ Health was created. There are four sections: introduction, using respectful language and terminology, health inequities and medical violence, and providing affirming care. **Conclusion:** Foundational Concepts for LGBTQ2S+ health is an e-module that centers the experiences and work of LGBTQ2S+ people. Multimedia, including videos, music, and poetry, are used to demonstrate the value of alternative forms of teaching and learning in medicine. Next steps include incorporation into UBC's MDUP curriculum, impact assessment, and widespread distribution through an open-access online platform.

526 Diabetes and Well-Being in Urban China

Si Mei (Amy) Li*, MD, MSc; Tamkinat Rauf, MPP; Julia Gustafson, MPP; Shankuan Zhu, MD, PhD; Xueyin Zhao, PhD; Yan Min, MD; Ann Hsing, PhD; Catherine Heaney, PhD, MPH

Learning objective(s):

1. Determine prevalence of diabetes in urban China and association between diabetes and well-being

Description:

Participants: WELL-China is a prospective cohort study. Approximately 6000 participants in Hangzhou China completed surveys and provided biometric data. The eligibility criteria included being permanent residents who planned to stay in Hangzhou for 2 years and being between 18 to 85 years old.

Intervention: To measure well-being, we used the Stanford WELL for Life Scale (SWLS), which has 10 component domains. Participants self-reported their disease status for diabetes, and HbA1c levels were measured to assess glycemic control. **Main outcome measures:** Participants' well-being score, which was measured using the Stanford Well for Life Scale (SWLS). **Results:** The prevalence of diabetes was 9.1% and the prevalence of prediabetes was 18.3%. Among participants with diabetes, 46.1% were unaware of this diagnosis. Among participants who self-reported diabetes, 43.5% did not have optimal glycemic control. Over 60% of people with diabetes also have either hypertension or hyperlipidemia. Compared to those without diabetes, participants with diabetes (diagnosed and undiagnosed) and undiagnosed prediabetes showed no significant differences in the overall well-being score. Participants with diabetes (both diagnosed and undiagnosed) scored significantly lower in the lifestyle domain. Participants with well-controlled diabetes scored significantly lower in the physical health domain and higher in the diet subdomain compared to those without diabetes. **Conclusion:** These findings highlight a need for better screening and follow-up for diabetes. The results also illustrate a need to increase physical activity levels among people with diabetes.

436 Early Pregnancy Complications Care Gap Analysis and Pathway

K. Jean Chen*, MD, CCFP (EM); Anita Pozgay, MD, FRCPC; Sam Wilson; Celina DeBiasio; Matt McKinnon; Glenda Clapham; Sam Calder-Sprackman, MD, FRCPC; Jessica Dy, MD, FRCPC; Edmund Kwok, MD, FRCPC

Learning objective(s):

1. Recognize the importance of multidisciplinary care in early pregnancy care
2. Describe Health Quality Ontario standards for early pregnancy complications

Description:

Background: Health Quality Ontario (HQO) Quality Standards recently updated their Early Pregnancy Complications (EPC) recommendations, placing an increased emphasis on patient engagement and communication. The Ottawa Hospital (TOH) Emergency Department (ED) aims to identify care gaps between HQO standards and current care, and to develop patient-centred clinical-care pathway models (CPM) to address such gaps. **Methods:** Retrospective chart reviews were performed on 2018 TOH ED EPC encounters. 504 encounters were identified and included for analysis. An interprofessional team, involving nursing educators, social workers, emergency physicians and obstetrician/gynecologists, developed the CPM based on iterative focus group interviews with patient advocates and all stakeholders. Special attention was paid with feedback from with patient advocacy representatives. **Findings:** 455 (89%) EPC patients presented with vaginal bleeding. 22 (4%) patients were offered initial pain management, and one (< 1%) received STI or intimate partner violence (IPV) screening. 420 (83%) patients received appropriate interview, physical exam and investigation. In 1 ectopic pregnancy case,

psychosocial support referrals were not offered. If a non-viable intrauterine pregnancy (IUP) was confirmed, appropriate medical management and psychosocial support were offered. Preliminary analysis highlighted care gaps between HQO Standards and current TOH ED EPC care. We developed the CPM, nursing triage directives, received buy in from nursing and social workers to heightened compassionate support, and revised education booklet with communication strategies to address these gaps. **Discussions:** We developed a CPM based on identified gaps, which provided the framework for collaborative interdisciplinary care. Various communication strategies for clinicians and shared-decision making tools were examined and are included as part of the care pathway. Future goals are to disseminate the CPM and perform post-implementation analysis to confirm initial pain management, STI/IPV screening, and psychosocial support improvements.

537 Electronic Health Records and Burnout in Primary Care

Jeremy Chad*, MD, MSc; Paul Dolinar, MD, MS; Michelle Greiver, MD, MSc, CCFP, FCFP;
Kimberly Lazare, MD, MScCH, CCFP

Learning objective(s):

1. Recognize perspectives on EHR use and burnout among Canadian primary care physicians
2. Identify contributions that EHRs have on job satisfaction, personal wellbeing, and burnout
3. Implement strategies for mitigating burnout at the individual and systemic levels

Description:

Context: Electronic health records (EHRs) are widely used in Canada's primary care system. Several studies have shown that EHR use can lead to burnout among health care workers, including primary care physicians. To date, no studies have been completed investigating the impacts of EHR use on burnout in Canadian primary care physicians. **Objective:** This study sought to explore Canadian primary care physicians' perspectives on EHR use and its associations, if any, with burnout. **Design:** This was a qualitative study. Participants engaged in individual semi-structured interviews. Interviews were transcribed and themes were developed using inductive thematic analysis. **Setting:** Physicians practicing in urban and rural settings were interviewed. **Participants:** Participants were family physicians with primary practices in either North York, Ontario or Orillia, Ontario. Participants were required to work in a general family practice setting at least 5 half-days per week and to use EHR in their primary practices. Nine physicians participated; 6/9 participants identified as male, 7/9 practiced in a FHO model, and 8/9 practiced in at least one additional setting beyond general office practice. **Findings:** Five themes were identified: (1) EHR as a tool for wellness, (2) EHR impacts on patient care, (3) EHR impacts on boundaries, (4) essential skills for overcoming burnout, and (5) system-level considerations. Participants emphasized that, despite some technical and boundary-related challenges, EHR use largely contributes positively to their personal wellbeing. Participants provided both personal and system-level strategies for mitigating EHR-related burnout in primary care. **Conclusion:** The study's findings highlight Canadian family physicians' perspectives on the benefits of EHR use for job satisfaction and personal wellbeing, far outweighing the features of EHR use that have previously been shown to contribute to burnout. These findings offer important perspectives for Canadian primary care physicians when considering the impacts that EHR use has on them personally and professionally.

533 Evaluating End-of-Life Cancer Care During the Last Admission

Tianyang Dai*, MD; Jaskirat Gill, MD; Anita Chakraborty, MD, CCFP; Sonal Gandhi, MD, MSc, FRCP

Learning objective(s):

1. Characterize the current trends in end-of-life cancer during patients' last admission using various quality indicators
2. Identify the potential gaps in current acute care model for advanced cancer patients

Description:

Context: Death in inpatient settings is often resource-intensive and not aligned with patient wishes. While many studies asserted to assess the quality of end-of-life care, very few focused on the last admission before patients' deaths. Evaluating care elements in such setting may help establish trends and improve the quality of precedent care. **Objective:** To characterize the current trends in end-of-life cancer care during the last admission. **Design:** Retrospective cohort study. **Setting:** Sunnybrook Hospital. **Participants:** Cancer patients who died in Sunnybrook acute care unit (ACU) or palliative care unit (PCU) after being admitted to an ACU from in 2017. MAID patients excluded. **Intervention:** Patients' demographic information, cancer treatment history, symptom burden, and course of the hospitalization were extracted from the Sunnybrook EMR. **Main outcome measures:** Quality indicators in Structure and Process of Care, Physical Aspects of Care, and Goals of Care (GOC) Aspects of Care were used for statistical analysis and comparison between the ACU cohort and PCU cohort. **Results:** Overall, 108 patients died in the ACU and 142 in the PCU. The symptom burden between the two cohorts were comparable. The ACU cohort had larger percentage of patients (28.7% Vs 7%) with longer ICU stay (4.6 days Vs 2.5 days), more frequent transfusions (27.8% and 4.8 times Vs 14.8% and 2.1 times), and shorter time gap between the last chemotherapy (111.4 days Vs 213.4 days), the last radiation (242.3 days Vs 303.5 days) and death. Less ACU patients received palliative consults in the community (24% Vs 45%), while ACU patients waited longer to receive inpatient palliative consults (6.4 days Vs 4.1 days). GOC documentation were less complete for ACU patients upon admission (30.5% Vs 52.1%). **Conclusion:** The ACU cohort demonstrated inferior results in the end-of-life care quality indicators across various domains than the PCU cohort during the last hospitalization.

495 Evaluation of Two eConsult Models of Care

Clare Liddy, MD, MSc, CCFP, FCFP; Sheena Guglani*, MSc, Amir Afkham, JJ Hupka; Andrea Miville, MHA; Erin Keely, MD

Learning objective(s):

1. Assess and compare two options for accessing specialist advice on an eConsult platform

Description:

Objective: To demonstrate the feasibility and evaluate patterns of use of two options for accessing specialist through an eConsult service. **Setting:** The Ontario eConsult service (OES) allows for timely access to specialty advice for primary care providers (PCPs). Since June 2018, PCPs in Ontario have had two options for accessing specialists. The requesting provider can: 1) directly access an individual specialist (or practice) through the Direct To Specialist (DTS) model; or 2) access a BASE™ managed specialty group, where the case is assigned to an individual specialist in the group. To our knowledge,

this is the only eConsult service that offers these two options. **Methods:** 12 months, (October 2018 to September 2019), of OES Data were used to evaluate patterns of use across the two models based on the following variables: case volume, users, region, billing time, cost, and specialty. Additional data from the primary care close-out survey, where PCPs indicate the outcome of the eConsult for the patient and whether a referral was avoided, was also used. **Results:** 26, 121 eConsults were submitted to the OES. 65% of the cases were submitted through the BASETM managed groups. Among the 2849 PCPs that submitted at least 1 eConsult, 41% exclusively used the BASE model and 19% exclusively sent cases to DTS and 40% used both. Similar rates of referral avoidance were observed eConsults for both models of care. 11 out of 14 regions in Ontario submitted 50% or more of their cases through the BASE TM model. eConsults submitted through DTS had a higher mean for time billed and the response interval for the specialist to provide a response. **Conclusion:** We demonstrate that it's possible to successfully provide PCPs two options to access specialist advice on an eConsult platform and present patterns of use on both models of care.

547 Exploratory Analysis of Preceptor-Entered vs Resident-Entered Preceptor Fieldnotes

Delane Linkiewich*, BA; Shelley Ross, PhD

Learning objective(s):

1. Describe an approach to conducting exploratory analysis of assessment data to assist with learning analytics

Description:

Context: All family medicine residency programs in Canada are required to design their assessment frameworks to align with the Continuous Reflective Assessment for Training (CRAFT) guidelines from the College of Family Physicians of Canada (CFPC). A key element of CRAFT is the fieldnote, a low stakes workplace-based assessment tool to document feedback shared with a resident in clinical contexts. In our electronic system, fieldnotes can be entered by a preceptor about a resident (self-entered), or by the resident on behalf of the preceptor (resident-entered). Learning analytics using fieldnotes can provide information for program evaluation and improvement. **Objective:** The purpose of this study is to take a learning analytics approach to examining characteristics of preceptor-entered versus resident-entered preceptor fieldnotes when a specific preceptor appears as “observer” more often than the resident’s assigned continuous advisor. **Design:** Retrospective observational longitudinal cohort secondary data analysis. **Setting:** Medium sized Canadian family medicine residency program. **Data source:** Fieldnotes from three teaching sites across three consecutive cohorts (2015, 2016, & 2017). **Inclusion criteria:** residents where one specific preceptor is indicated as observer on more fieldnotes than is the resident’s assigned advisor. **Main outcome measures:** Characteristics of fieldnotes (quantity, quality score, progress level, topic). **Results/findings:** Fieldnotes (N=1168) from 34 residents (70% female) and 24 preceptors (37% female) were examined in the analysis. In all cases, the majority of the fieldnotes were preceptor-entered. Non-advisor preceptors were most likely to enter fieldnotes about management (23%) and patient-centered care (17%). Preceptor-entered notes were more likely than resident-entered notes to indicate “Carry on, Got it” (50% vs 45%), and were scored higher for quality (M= 3.28 vs M= 2.9). **Conclusion:** Preceptor-entered fieldnotes are of higher quality and skew more positive in judgement than do resident-entered fieldnotes. This suggests that residents are not “cherry-picking” when entering fieldnotes on behalf of advisors.

510 Family Medicine Promotion from Preclerkship to Residency

Andrew Lam MPH; Mayanne Zhu; Wendy Zhang MSc; Tiffany Got*

Learning objective(s):

1. Discuss opportunities to collaborate with undergraduate medical students to enhance Family Medicine education
2. Appreciate the importance of continuum in family medicine education and discuss ways to implement it
3. Identify opportunities to strengthen medical student interest groups at their respective institutions

Description:

Background: Student interest groups provide valuable exposure for medical students to post-graduate specialties and can influence career decision-making. The student-run Family Medicine Interest Group (FMIG) at the University of Toronto (UofT) was established in 2003. Pre-clerkship co-presidents lead junior and senior executives who are responsible for independent portfolios at each campus. In 2018, the FMIG remodelled their organizational structure to better suit the needs of students and promote interest in Family Medicine (FM). **Objective:** This poster will showcase the recent structural innovations of one of the largest FMIGs in North America. **Design:** A case study design reflecting on the experiences of the executive members and the structure of the FMIG. **Results:** First, the FMIG expanded from a primarily pre-clerkship team to include senior medical students and FM residents, allowing more accurate identification of trainee interests and needs. Second, FMIG executive members were paired with faculty leadership in the Department of Family and Community Medicine for better oversight and alignment with institutional goals promoting FM as a specialty. Third, new portfolios such as Education and Scholarship were created to reflect the scope of FM and to address the needs of students looking to engage in scholarly work with FM faculty. **Conclusion:** Results of questionnaires evaluating changes to FMIG structure and future directions will be discussed.

508 Feasibility and Effectiveness of Smoking Cessation Interventions

Ashley M. Yu*, BHSc, MD; Wilfred Ip, HBSc, MD, PhD; Belle Cao, BHSc, MD; Matthew Got, BHSc, MD

Learning objective(s):

1. Recognize the importance of smoking cessation in family medicine
2. Acknowledge the challenges faced with family physicians and smoking cessation
3. Review interventions that may improve smoking cessation within active smokers

Description:

Introduction: Smoking cessation has numerous health benefits. Studies show multi-component interventions with more patient contact are more effective. This study evaluates the feasibility and effectiveness of using proactive telephone and mail interventions to prompt in-person appointments dedicated to discussing smoking cessation. **Methods:** The study was performed at an academic family medicine practice in Hamilton, Ontario in 2018-2019. Patients assessed by a physician in the preceding

six months for smoking cessation tracked via a billing code were included. Deceased or derostered patients were excluded. This study was a non-blinded randomized controlled trial performed in two separate phases for two different interventions: a telephone call from study authors or a letter from the clinic via mail advising smoking cessation and offering support through in person follow-up. Outcome data was collected by telephone calls to all participants at four months following intervention and analyzed via t-test and linear regression. **Results:** Initially, 50 patients were randomly assigned to each of the four study groups and 6 were excluded. Included patients were 52.9% female with ages ranging from 17-83 years old. At follow-up, 83 of 194 patients responded to our follow-up telephone interviews. On average, study participants smoked 15.9 cigarettes per day at baseline, with 83.3% having previous attempts at smoking cessation. The intervention groups combined had more quit attempts and larger percentage reductions in cigarettes smoked per day (31% vs 11%). Linear regression did not identify predictors of reduction in cigarettes per day. **Conclusion:** The results show intervention groups combined had a reduction in smoking. However, the results are not statistically significant, a finding which reflects the 57% drop-out rate. While this drop-out rate is in line with other real-world studies, future interventions should involve better follow-up of these patients.

513 Framework for Virtual Mental-Healthcare in Children & Youth

Yue Bo Yang*, BSc; Bridget T. Doan, MN NP; Erin Romanchych, PhD; Seena Grewal, MD, FRCPC; Suneeta Monga, MD, FRCPC; Tony Pignatiello, MD, FRCPC; Pier Bryden, MD, FRCPC; Chetana Kulkarni, MD, FRCPC

Learning objective(s):

1. Gain an understanding of the 6-pillar framework for virtual mental-healthcare
2. Understand the advantages and disadvantages of virtual mental health-care compared to in-person care
3. Understand the potential future implications that virtual mental-healthcare may have on the field

Description:

To date, the use of child and youth telepsychiatry has been described primarily in the context of services for rural populations(1-3), typically showing similar parental satisfaction, diagnostic profiles, treatment adherences, and improvement in primary outcomes compared to in-person visits(4, 5). Traditionally, telepsychiatry has been delivered at satellite care centers in a technologically and medically optimized environment where healthcare providers, medical services, and interventions are readily available in the case of safety or general medical concerns(5). In contrast, the Covid-19 pandemic has catalyzed a rapid transition to delivering telepsychiatry services directly to patients' homes(6), which we define as direct to patient virtual mental healthcare (VMHC) hereafter. This rapid transition to VMHC for children and youth presents unique considerations in terms of extensive variation and access to technologies, availability of a responsible adult support person, and private assessment spaces. The onus is therefore on the clinician to optimize the encounter with consideration of the patient's available resources, socioeconomic status, stability of housing, and relationship with the adults present. Currently, there is no detailed documentation in the literature of how to optimally deliver VMHC to children and youth or discussion of these considerations. In order to bridge this gap, we have created a framework for VMHC. Furthermore, we speculate that as patients become accustomed to these services, there may be an

impetus to continue to offer VMHC on an ongoing basis following the eventual resolution of the Covid-19 pandemic, making such a framework an invaluable tool for clinicians providing mental health care to this population.

470 Gender-based Discrimination in Family Medicine Residency

Tina Chiang*, MD; Victoria Au, MD; Navsheer Toor, MD

Learning objective(s):

1. Evaluate the extent Gender-Based Discrimination experienced by Family Medicine Residents
2. Identify the sources and sites where Gender-Based Discrimination were experienced by Family Medicine
3. Residents Identify the impact of Gender-Based Discrimination on Family Medicine Residency

Description:

Context: Gender-based Discrimination (GBD) has the potential to greatly affect trainees' training, career success, and self-esteem. In the ever-changing landscape of medicine, GBD has been discussed especially in the field of surgery but is rarely studied in other disciplines. **Design:** A cross-sectional study using a survey adapted from a study by McKinley et al. from Harvard University. A Letter of Exemption was obtained from Southlake Research Ethics Board. **Setting:** Ontario. **Participants:** Family Medicine (FM) residents enrolled in the University of Toronto in February 2020. (Sample size: 272). **Results:** There were 68 responses. 46 (62%) were female and 22 (32%) were male. The extent to which female and male respondents experienced GBD was rated on average 5.13 and 3.90 out of 10, respectively. The difference was not statistically significant. The main settings where GBD was experienced include clinic (72%, 95%CI:60-82%), emergency room (60%, 95%CI:48-72%), obstetric ward (57%, 95%CI:45-69%), inpatient ward (56%, 95%CI:43-68%), and operating room (35%, 95%CI:24-48). Common sources of GBD include patients (85%, 95%CI:75-93%), patient families (66%, 95%CI:54-77%), attending physicians (56%, 95%CI:43-68%) and nurses (53%, 95%CI:40-65%). Only 10% (95%CI:4-20%) of respondents who experienced GBD reported their experience. 71% (95%CI:58-81%) of respondents that experienced GBD felt there was less trust from patients or families due to their gender. **Conclusion:** This study confirms that GBD is a common issue affecting FM residents. Main sources of GBD are patients and their families in a clinic setting. The study also shows that these GBD encounters have a negative impact on family medicine residency. There is a need for the university to improve their support for residents dealing with GBD. The study is, however, limited by the rate of response, as well as possible researcher, cultural, and selection bias. Overall, this was a small study that acts as a stepping stone for future studies in an important topic.

438 Group A Strep Pharyngitis in After Hours Clinic

Rashi Hiranandani*, MD, MSc; Dilshaan Panjwani, MD; John White, MD; Ryan Peters, MD; Rebecca Lys, MD; James Haley, MD; Nidah Khan, MD; Sara Zeinoddini, MD; Anthony Train, MD, CCFP

Learning objective(s):

1. Describe evidence based diagnostic criteria, work up and management for Group A Strep Pharyngitis

Description:

Context: Antibiotic resistance is a growing problem, and antibiotic overuse is one of the largest contributors. Pharyngitis is a common family medicine presentation, but it is difficult to differentiate between viral and Group A Streptococcus (GAS) pharyngitis. For this reason, it is important for physicians to follow clinical guidelines recommending diagnostic microbial testing using the Rapid Strep test (RST) and/or throat culture prior to antibiotic prescription. We hypothesized that because of time constraints in the After-Hours Clinic (AHC), resident and staff physicians might diagnose GAS pharyngitis based on clinical assessment, which risks overdiagnosis and overtreatment with antibiotics. **Objective:** To determine the rate that the workup and management of Group A strep pharyngitis deviates from established guidelines in an AHC. **Design:** Practice Improvement Project involving retrospective chart review. **Setting:** AHC at an academic family health team in Kingston, ON. **Participants:** Our data consisted of all patient visits related to GAS pharyngitis from October to December 2019. We identified cases by reviewing all notes for AHC visits and searching for the following keywords: "fever", "cough", "sore throat", "Strep", "throat pain", "tonsillitis", "Upper respiratory infection", "throat." If these words were present, the charts were examined further. If GAS pharyngitis was considered a potential diagnosis based on the note, the visit was included in our analysis. **Main outcome measures:** 48% of antibiotic prescriptions were inappropriate and performed either without or with negative microbial testing. **Results:** Out of the 88 charts reviewed, 78% did not have CENTOR score calculated; 45% had an RST done, of which 72.5% were negative. Furthermore, 34% of reviewed charts had a throat culture done, of which 83% were negative. 24% of all patients received an antibiotic prescription, of which 48% did not have confirmatory microbial testing. **Conclusion:** At our ACH, GAS pharyngitis is overdiagnosed and overtreated.

554 Healthcare Experiences of Survivors of Intimate Partner Violence

Jeevan Kaiser*, MPhil; Muhammad Khan*; Marghalara Rashid, MSc, PhD; Jill Konkin, MD, MCISc; Tracey Hillier, MD, MEd; Helly Goez, MD

Learning objective(s):

1. Recognize perceptions which impact women's decision to seek support from physicians regarding intimate partner violence
2. Explore the perceptions that women have of physician responses to disclosures of intimate partner violence
3. Explore women's expectations of physicians and recommendations regarding the physician response to intimate partner violence

Description:

At least 30% of women aged 15 and over reportedly experience physical and/or sexual forms of intimate partner violence (IPV) during their lifetime. Women with lived experience of IPV have worse health-related quality of life and demonstrate a range of acute and chronic health problems, poor self-perceived physical health and chronic pain. IPV is also the leading cause of homicide death for women worldwide. As women who have experienced IPV report increased use of health services, physicians are

in a unique position to identify and respond to IPV and prevent further harm. However, medical students and physicians report being inadequately trained to address this issue. Now, more than ever, there is a critical need to address IPV due to the exacerbation of mental and physical health outcomes among women survivors of IPV as a result of the current pandemic, which may persist into the post-pandemic period. To inform training in a patient-centred way, we conducted a systematic review of the experiences of individuals with histories of IPV in their interactions with health care professionals (HCPs) in order to learn from the direct experiences of women impacted by IPV. Six databases were systematically searched until July 2020 using a controlled vocabulary. Only studies reporting the results of qualitative analysis based on qualitative methods of data collection were included. Our review adds to the limited body of evidence exploring the health system response to this underserved population by identifying gaps and providing explicit recommendations for improvement in a patient-centred way. These are related to the emotions and perceptions impacting women's decision to seek health care support, survivors' perceptions of their experiences with physicians, and their expectations and explicit recommendations for HCPs.

540 Impact of Structured Versus Simple Physiotherapy in CNCP

Radhika Marwah*, MD, MBBS, MSc-AAMH; Samuel Simonson; Jason Vanstone, PhD

Learning objective(s):

1. Organize accessible physical therapies in resource limited settings and recognize factors leading to patient uptake

Description:

Objective: To evaluate efficacy and patient uptake of accessible structured versus non-structured physical therapeutic modalities in managing chronic non-cancer pain (CNCP). **Design:** Retrospective chart review. **Setting:** The Chronic Pain Center (CPC) in Regina, SK, is a multidisciplinary clinic embedded within primary care to manage CNCP and opioid use disorder (OUD). Our model educated patients on physical therapies and offered a single physiotherapy consult to determine if the patient should follow a structured, semi-supervised home exercise program or a structured, supervised exercise therapy program. Non-structured exercise, per tolerance and choice was done in an unsupervised manner at home. **Participants:** Study eligibility included a diagnosis of CNCP and subsequent management at the CPC. Patients were required to follow a structured, supervised exercise program, a structured, semi-supervised home exercise program, or an unstructured, unsupervised program after a single consultation with a physiotherapist. Sixty-eight patients were included in the study. Forty-seven patients were female with a mean age of 52. **Main outcome measures:** Measures included highest/lowest Brief Pain Inventory (BPI) and Pain Disability Index (PDI) scores over a period of ≤ 12 months, as well as self-reported improvement in social, community, and/or personal functioning. These metrics were correlated to the different physical therapy modalities to determine efficacy. **Results:** Uptake for both structured and unstructured physical therapeutic modalities was 30% (67/225). BPI scores decreased by a mean of 1.0 ($p=0.0122$) and PDI scores decreased by 1.1 ($p=0.0161$) across all physical therapy programs. 85% (58/68) of patients included in the study reported improved functionality. **Conclusions:** In resource limited clinics managing complex CNCP, early findings demonstrate the CPC's structured and non-structured physical therapeutic modalities are both cost-effective and efficacious. Education on the

benefits of physical activity, a focus on patient choice, and accessible programs are essential for strong patient uptake despite the program type.

509 Implementing 2017 Opioid Prescribing Guidelines Within a FHT

Jackson Blonde*; Andrew Atkins; Susan Munro, MD, CCFP

Learning objective(s):

1. Practically implement the 2017 Canadian Opioid Prescribing Guidelines
2. List barriers and successful strategies to managing patients with chronic non-cancer pain
3. Use the Opioid Toolbar to better monitor and manage opioid use within a practice

Description:

Context: Canadians are in the midst of an opioid crisis, driven in part by prescription opioids. Canada has the second highest rate of opioid prescribing per capita in the world. Within the Ontario Local Health Integration Networks (LHIN), the Erie St. Clair LHIN is among the highest in terms of opioid prescribing rates. **Objective:** To implement the 2017 Canadian Opioid Prescribing guideline within a family health team. **Design:** Qualitative description. **Setting:** The Thamesview Family Health Team (TFHT), located in the Erie St. Clair LHIN. **Participants:** TFHT patients with chronic non-cancer pain (CNCP) and an active opioid prescription between June 2018-June 2019 (n = 1,356). Patients on suboxone and methadone were excluded. **Intervention:** We identified participants using Practice Solutions Suite. We then used the Opioid Toolbar to calculate the morphine equivalent (MEQ) for each patient. Lastly, we interviewed 17 physicians regarding their approach to managing patients with CNCP, the reasons why their patients have an MEQ ≥ 90 , their management plan for these individuals, and their attitudes toward the guideline. **Main outcome measure:** Number of patients with an MEQ ≥ 90 . **Findings:** Five percent of rostered patients had an active opioid prescription. Of these patients, 10% had an MEQ ≥ 90 (n = 138). Physician's approaches to managing patients with CNCP and those with an MEQ ≥ 90 were multimodal. The most common reasons for having a patient with an MEQ ≥ 90 were: (1) they were inherited from another physician on that dose, and (2) it is necessary for adequate pain management. Most physicians supported the guideline but found it unrealistic in certain situations. Six physicians began implementing the Opioid Toolbar. **Conclusion:** Physicians of the TFHT are actively implementing the 2017 guideline into their practices. Furthermore, the Opioid Toolbar provided an effective way of evaluating and managing opioid prescribing practices.

516 Implications of Prenatal Maternal Stress on Dermatoglyphic Development

M. Leis*; G. Elgbeili; DP Laplante; S. King

Learning objective(s):

1. Demonstrate the role of prenatal maternal stress on dermatoglyphic development
2. Demonstrate the need for prenatal maternal stress screening

Description:

Prenatal maternal stress (PNMS) is associated with dermatoglyphic abnormalities for patients with psychotic illnesses. This may be due to development of brain structures and dermatoglyphics during the same gestational period. We sought to increase understanding of the associations between three different aspects of PNMS and dermatoglyphic markers, and explore the implications of these stressors on mental health outcomes. Specifically, we sought to determine if dermatoglyphics may be used as a biomarker for screening adolescents at risk of developing psychotic symptoms. Project Ice Storm is an ongoing longitudinal study assessing the PNMS effects of the 1998 Quebec ice storm on children's development. Structural MRI was used to collect brain data of the Project Ice Storm children (n=31-63) and a 1997-born control sample (n=31-54) at ages 11 and 16, with measures of psychotic-like symptoms acquired at these time-points. Fingerprints were obtained from both groups. Results demonstrated that left hand total finger ridge count was associated with 16-year-old psychotic like symptoms in the prenatally stressed group, suggesting that lower total finger ridge count were associated with lower psychotic-like symptoms. No associations were found at age 11 between psychotic-like symptoms and dermatoglyphics. Our results suggest that prenatal stress may predict psychotic-like experiences in adolescence, and the independent risk factor of total finger ridge count may manifest differently in adolescence depending on the timing of the stressor.

444 Improving Community Access to AEDs in Niagara

Ryan C. Chadwick, MD, PhD; Sarah Chadwick, MD, MA; Keil Elliott, MD; Rebecca Haworth, MD; Hannah Kearney*, MSc; Alysha Laviolette

Learning objective(s):

1. Identify a crowd-sourcing strategy for building an AED registry
2. Evaluate the significance of timely AED access in out-of-hospital cardiac arrests
3. Explore the distribution of AEDs in the Niagara Region

Description:

Context: Over 35 000 Canadians lose their lives to cardiac arrest each year. CPR and automated external defibrillators (AEDs) are important modifiable factors that can improve survival. Survival rates decrease by 7-10% each minute that defibrillation is delayed, and survival rates are <5% after 12 minutes of ventricular fibrillation. This time frame emphasizes the importance of timely bystander AED use, however, finding an AED can be a time-consuming task. In King County (Seattle) all AEDs are registered with EMS, which may contribute to their high out-of-hospital cardiac event survival rates. In Niagara, a similar AED registry doesn't exist. **Objective:** 1) To create an open-access registry of AEDs in the Niagara region using an open-access smartphone application (PulsePoint) that allows AEDs to be geotagged. 2) To disseminate registry information to Niagara Health System (NHS) staff, medical trainees, and the greater Niagara community. **Design:** Quality Improvement (QI). Five PDSA cycles testing the effectiveness of logging methods for AEDs into PulsePoint, which included: opportunistic logging, daily email reminders, contacting organizations with a high likelihood of having AEDs (e.g. gyms), and collaborating with Heart Niagara (a not-for-profit corporation that works to improve access to heart health services). **Main outcome measures:** Number of regional AEDs logged and number of people reached via dissemination efforts. **Results:** We logged a total of 175 AEDs and contacted over 750 businesses during the 5 PDSA cycles. Our 5th PDSA cycle (collaboration with Heart Niagara) was the most successful as we logged 119 AEDs. We have disseminated the information to approximately 200

NHS trainees and community members via discussions and a televised InfoHealth seminar. **Conclusion:** To our knowledge, this initiative was the first attempt at creating a centralized AED registry in the Niagara region. Using an open-access smartphone application will hopefully allow the community to easily access and maintain the registry.

546 Improving Residency Admissions with a Digital Tool

Sung Min Cho*; Sebastian Kosch; Quincy Poon; Fok-Han Leung, MD, MHSc, CCFP;
Vanessa Rambihar, MD, CCFP

Learning objective(s):

1. Examine the role of a digital tool in improving the resident selection process
2. Recognize common challenges of residency admissions system

Description:

Background: Residency application and selection process is a major responsibility of post-graduate medical education programs. Coordinating and evaluating hundreds of applicants can demand tremendous financial and human resources on an annual basis and significant amounts of time. Selection committees must also simultaneously ensure that the entire operation remains fair and reliable. A robust, online admissions tool to coordinate the large scope and volume of applications can help to address such challenges. **Intervention:** The Department of Family and Community Medicine (DFCM) at the University of Toronto has undertaken a process to revolutionize our admissions process by improving time efficiency for administrative staff, faculty, residents and applicants, and increasing the reliability of our file review and interview scores and thus candidate rankings, resulting in a more equitable selection process. These improvements have been facilitated by the development of a dynamic, web-based software platform designed to coordinate the application, scheduling, scoring and ranking process involved in Residency Admissions and Selection Processes, removing human error and improving efficiency of time and available resources. **Key features of our program are as follows:** 1) automate recruitment of interviewers and assignment of interviewees; 2) real-time monitoring of data updates and communication responses; 3) centralized interface that eliminates the need for multiple logins and ancillary programs; 4) ability to assess inter-reviewer variability; 5) anchors to guide accurate candidate scoring; 6) ability to revise candidate scores. **Conclusion:** Efficient operation permitted an increase in dedicated time spent on training reviewers to improve standardization in evaluation. The software also detected human errors and biases that may have gone undetected in the past. Although every residency program has its own unique challenges, the lessons learned in the development of our software platform are useful to programs across Canada given the overall similarities in residency application and selection processes.

519 Improving Resident Comfort in Osteoporosis Exercise Counselling

Betty He, MD; Ayesha Rana*, MD, MSc; Sandra Toutounji, MD

Learning objective(s):

1. Improve resident comfort level in counselling around exercises in osteoporosis over a 3 month period
2. Develop a resource for residents for counselling around exercises in osteoporosis

Description:

Exercise counselling is an essential component of osteoporosis management. Proper physical exercises can increase bone mineral density, flexibility and physical strength, while reducing falls and fractures risk. At the Credit Valley Family Health Team, there was no readily available resource for patients with osteoporosis regarding physical activity. Based on resident feedback, it was highlighted that resident patients with osteoporosis do not receive adequate support around recommended exercises. The objective of this project was to improve the Credit Valley Family Health Team residents' comfort level in counselling around exercises in osteoporosis by 5% over a 3-month period. Interventions included an exercise demonstration to residents, and the creation of an exercise handout as a resource. Other process measures included resident self-reported utility of resources, and uptake of handouts, both printed and electronic. With the collaboration of several interprofessional team members including our pharmacist, clinical assistant, quality improvement decision support specialist, as well as staff physicians, multiple PDSA cycles were completed and the interventions were successfully implemented. As a result of the project, there was a 24% increase in overall resident comfort in exercise counselling. Additionally, approximately 34% of patients with osteoporosis received an exercise handout, compared to a previous self reported frequency of 17%. Ultimately, the goal of these interventions is to improve osteoporosis outcomes, such as through reducing falls and fracture risk for patients.

503 Improving Resident's Autonomy Through New Integration Activities

Audrey Dubé*, MD, PhD, CCMF; Éric Bordeleau, MD, PhD; Joanie Rinfret, MD, CCMF

Learning objective(s):

1. Recognize the value of new technologies and flipped classrooms in integration activities
2. Evaluate teaching strategies to improve residents commitment and integration

Description:

Context: The two-years training cursus of family medicine residents is constituted of various clinical activities that are longitudinally integrated. This context urges residents to rapidly adapt themselves to multiple training environments and to quickly develop learning and clinical autonomy. **Objective:** The main objective of this initiative is to optimize the educational relevance and the consistency of the integration activities offered to the residents. **Description of the innovation:** To better understand their effectiveness, a systematic analysis of the activities previously offered was performed. Based on reference frameworks related to self-regulated experiential learning, the new integration activities now rely on a variety of technologies, use flipped classrooms and favor collaborative working. This combination of teaching strategies was developed to foster autonomy and commitment among residents regarding their learning habits based on the team learning concept. **Outcome measurements:** Each proposed improvement was analyzed and correlated with both Kolb's experiential learning cycle and the TECH (technology, engagement, connectedness, hopeful) approach, a recently proposed concept to improve Millennial's educational performance. Resident's degree of satisfaction and autonomy were assessed using a survey approach combined to documented exchanges. **Results:** Mid-

term survey results confirmed the high satisfaction degree of the residents and regarding the new integration activities. The website/app is one of the most appreciated novelty, as well as the flipped classrooms. The survey also pointed out some activities that need to be improved for the next year, such as courses, which were yet redesigned. **Conclusions:** This teaching innovation combines various teaching reference frameworks to solve a problematic specific to family medicine residents. Such teaching approach encourages clinical teachers to critically review their actual teaching and learning strategies to develop new ones that will improve the commitment of their trainees.

463 Keeping Patients Connected During COVID - Work-in-progress

Noor Ramji*, MD, CCFP; Deborah Kopansky-Giles, DC, MSc; Mohammad AlHaj, MD, MPH;
Gail Summagang, RN

Learning objective(s):

1. Describe a Primary Care intervention supporting vulnerable/high-risk patients through an interdisciplinary wellness check-in (WCI)
2. Explore the experiences and perspectives of patients and staff participating in this WCI program

Description:

Context: We are facing unprecedented times with the COVID-19 pandemic, social distancing and isolation, which poses increasing risk for patients due to lack of opportunity for in-person interaction with their health team, particularly for those who are vulnerable and at high risk. **Objectives:** 1) To ensure that vulnerable/high-risk patients/families continue to be connected to and supported by the family health team during COVID-19. 2) To understand the nature of patient concerns in uncertain times and provide resources to support their physical/mental health. 3) To understand the viability and impact of this program on participating Interdisciplinary Health Professionals (IHPs). **Design:** Iterative program evaluation using Stufflebeam's CIPP approach (Context, Input, Process/Methods, Product) with ongoing quantitative and qualitative data collection. **Setting:** Inner city, integrated hospital-based family health team (FHT). **Participants:** Department health professionals and patients prioritized as 'high risk' or vulnerable during COVID-19 pandemic. **Intervention:** Wellness Check-In (WCI) callers (FHT IHPs) were recruited to preventatively connect with high risk patients (seniors, underhoused, mental health, those on social assistance identified through EMR search) of our FHT. Subject Matter Experts (SMEs) were recruited to follow up with any patients identifying specific concerns focused around social determinants of health during the call. Callers and SMEs underwent training to the caller scripting, online resource portal, and data collection process. Weekly debriefs were conducted to assist with iterative improvement. Consultation with the department Patient and Family Advisory Committee occurred at outset and throughout the program to ensure appropriateness and relevance. **Outcomes:** 2500 high-risk patients were identified. 13 WCI callers and 8 SMEs participated. **Data collection included:** # of patients reached, length of call, desire for follow-up call, # of calls escalated to SMEs, context of patient concern, and satisfaction with the call from the perspective of both the patient and the caller. **Conclusion:** Initiative launched in late March, 2020. Data collection in process.

494 Leveraging Large eConsult Databases for Medical Education

Learning objective(s):

1. Implement a process for evaluating clinical data in eConsult datasets

Description:

Objective: To develop a method for leveraging an eConsult database that can inform medical education and research. **Setting:** The Champlain BASE™ eConsult service was developed to allow primary care providers (PCPs) to submit a patient-specific clinical question to a specialist using a standardized electronic form. As of March 2020, over 65 000 eConsults had been submitted. A standard protocol was established to analyze eConsults within each specialty. **Design:** Variables in the dataset included the specialty, patient gender, patient age, content of the eConsult, along with a PCP close out survey where PCPs provided feedback on the eConsult, including whether a face-to-face referral was avoided. Existing validated taxonomies (International Classification for Primary Care for Content Type and Taxonomy of Generic Clinical Questions for Question Type) were customized to eConsults for each medical specialty alongside the expert opinion of two reviewers, usually a resident and an experienced eConsult specialist. The eConsult was coded for type of question (classified as treatment, management, diagnosis or other) and subject content. At least twenty eConsults were initially coded by two reviewers, to ensure that the process was clear and that the codes were exhaustive, appropriate and valid, after which eConsults in the specialty were coded. **Findings:** The coded data were used to understand the type and frequency of questions asked in eConsults in 31 specialties. As a result, 21 publications from different specialties such as endocrinology and dermatology have provided specialists and PCPs with valuable information on the types of questions that are most relevant for medical education. **Conclusion:** Using a standardized methodology, we leveraged an eConsult dataset to provide insights on the frequency and types questions submitted through eConsult across several specialties. These studies demonstrate the utility of using eConsult case analysis to adapt and improve continuing medical education and research initiatives.

428 Mental Health Night: A peer-led initiative

Ivana Burcul, BSc; Jia Hong Dai, BSc; Becky Jones*, BMSc; Hannah Kearney, BSc, MSc

Learning objective(s):

1. Determine the effectiveness of peer-led seminars on improving medical students' comfort discussing mental health
2. Identify specific topics in which peer-led seminars can improve students comfort discussing mental health
3. Determine topics in which future seminars should focus on improving students comfort levels

Description:

Context: Medical students have been identified as having high levels of burnout. Discussing mental health may be a possible avenue to combat/address burnout in this high-risk group. **Objective:** To determine the effectiveness of peer-led seminars on improving medical students' comfort in discussing

mental health (MH). **Design:** Interventional study. **Setting:** A seminar about MH in medical school was held for first year medical students attending the Niagara Regional Campus (NRC) of McMaster University. General stress levels were evaluated using the Medical Student Stressor Questionnaire (MSSQ), and comfort levels discussing MH were evaluated using a novel 14-question survey.

Participants: All (28) members of the 2022 NRC class were invited. An n=15 was utilized based on survey completeness. **Intervention:** Senior NRC students presented 3 sessions: 1) Introduction to MH in medical school, 2) Personal MH narratives, 3) Small group discussion regarding coping strategies and recognizing peers-in-need. **Main outcome measures:** The novel 14-item Wellness Questionnaire was administered before and after the MH seminar. We hypothesized the intervention would improve students comfort level discussing MH. **Results/findings:** The intervention changed students' comfort level in talking to classmates about personal MH, asking friends for help with MH, expressing concern to friends about their MH, and recognizing MH crisis. The intervention did not change comfort level in talking to classmates, patients and the public about their MH, helping friends with MH, knowledge of MH, seeking professional MH care, or recognizing bad MH day in oneself. **Conclusion:** The peer-led MH seminar provided an outlet for first-year medical students to recognize MH challenges and connect with their peers about their personal MH. After the intervention, students still reported discomfort helping one another with MH and seeking professional MH care. Given the high rates of stress in medical trainees, future seminars should focus on methods to increase comfort in these areas.

430 Mortality and Multimorbidity of BC Residents Across HIV-Status

Grace Zheng*; Ni Gusti Ayu Nanditha; Hiwot Tafessu, MSc; Robert Hogg, MA, PhD;
Viviane D. Lima, MSc, PhD

Learning objective(s):

1. Evaluate the difference in multimorbidity prevalence and associated mortality between HIV-positive and negative individuals
2. Compare the mortality of HIV-positive individuals across geographical health regions in BC using choropleth maps
3. Describe the distribution of HIV-positive individuals across geographical health regions in BC using cartograms

Description:

Objective: Antiretroviral-treated people living with HIV (PLWH) now have similar life expectancies as the general population. Consequently, age-related comorbidities among PLWH have become more common. We compared the burden of multimorbidity and associated age-standardized mortality rates (ASMRs) among PLWH and HIV-negative controls across British Columbia (BC)'s health regions.

Methods: This population-based cohort study used individual-level data from the Comparative Outcomes and Service Utilization Trends (COAST) study. Antiretroviral-treated PLWH and 1:4 age-sex-matched HIV-negative controls were ≥ 19 years old and followed for ≥ 1 year during 2001-2012. The presence of seven age-related diseases were grouped into 0, 1 or ≥ 2 comorbidities for calculations of the prevalence of multimorbidity and ASMR per 1000 person-years for each health region. Analyses were conducted at the Health Service Delivery Area (HSDA) and Health Authority (HA) levels. Marginal structural modelling (MSM) was used to measure the odds of all-cause mortality for PLWH with 1, 2 and ≥ 3 comorbidities, while addressing for time-dependent confounders. **Results:** A total of 25% of PLWH

(N=8,031) and 11% of HIV-negative controls (N=32,124) developed multimorbidity and 17% vs. 3% died, respectively. PLWH had higher ASMRs compared to HIV-negative controls across all health regions and comorbidity groups. Among PLWH, ASMR associated with multimorbidity was the highest in the Central and South Vancouver Island HSDAs (82.78 [95% confidence interval [CI]: 33.92-180.47]) and lowest in Fraser North HSDA (40.67 (95% CI: 22.68-70.3)). Northern HA had the largest difference in ASMR between the two populations with PLWH having an excess of 31.4 deaths/1000 person-years compared to HIV-negative controls. MSM showed that in PLWH, additional comorbidities were associated with higher mortality. **Conclusion:** Excess mortality in PLWH still exists in all health regions across BC. However, regional differences highlight significant disparities that should be taken into consideration when prioritizing resources across BC to meet the needs of this aging population.

449 Multidisciplinary Primary Care Chronic Pain Interventions: Scoping review

Katie Young*, MOT; Leanne Leclair, BHSc(OT), MSc, PhD

Learning objective(s):

1. Identify how chronic pain is managed in multidisciplinary primary care settings
2. Identify non-pharmacological treatments/approaches used for patients with chronic pain in primary care
3. Explore the roles of different professionals in the primary care team for chronic pain patients

Description:

Background: Current practice guidelines suggest that multidisciplinary primary care teams should manage patients' chronic pain using a biopsychosocial approach. This approach includes non-pharmacological interventions. **Relevance:** Chronic pain is a recurrent reason for primary care consults, but providers report feeling ill-equipped to provide effective care. Non-pharmacological multidisciplinary approaches used to manage chronic pain in primary care are not well documented.

Purpose: Which non-pharmacological approaches do multidisciplinary teams use to manage adults with chronic pain conditions in a primary care setting? **Methods:** Using the Arksey and O'Malley framework, we conducted a scoping review that included six bibliographic databases and supplemental searching. Using pre-specified inclusion/exclusion criteria, two independent reviewers performed the study selection. **Results:** A total of 23 sources were included and 19 chronic pain interventions were described. Sources were published between 2007 and 2019. Five countries were represented: United States (12), Spain (4), Sweden (4), Australia (2), and Canada (1). There was substantial variability in the types and structures of interventions. Roughly half used a combination of group and individual modalities. Treatment modalities commonly included psychoeducation, cognitive behavioural approaches, behavioural activation, physical reconditioning, and mindfulness relaxation. Individualized care approaches commonly included case coordination, decision support for family physicians, medication management, symptom monitoring, and telephone follow-up. Team composition was variable; all teams involved a family physician, and most involved a mental health provider. Most interventions aimed to improve pain self-efficacy, level of function and quality of life, rather than reduce pain intensity, and succeeded in that regard. **Conclusion:** The integration of non-pharmacological multidisciplinary chronic pain management into primary care allows patients early access to safe and effective pain treatment.

This review demonstrates the innovative ways in which primary care teams are translating multidisciplinary approaches into primary care for patients with chronic pain.

16 Potentially Inappropriate Medication Use in the Elderly

Lesley Charles*, MBChB, CCFP (COE); Elena Kumar, MD, CCFP; Eimad Elghol, MBBCh, CCFP(COE); Bonnie Dobbs, PhD; Peter George Tian, MD, MPH, MSc; Oksana Babenko, PhD

Learning objective(s):

1. Identify potentially inappropriate medications among older adults

Description:

Context: The use of Potentially Inappropriate Medications (PIM) in the elderly population is significant, with the Canadian Institute for Health Information (CIHI) reporting that in 2016 nearly half of seniors (49.4%) had at least one claim for a drug listed in the Beers Criteria for PIMs. **Objective:** To determine the prevalence of PIM use among patients referred for comprehensive geriatric assessment (CGA).

Design: Two cross-sectional retrospective chart reviews. A certificate of approval has been received from Health Research Ethics Board, University of Alberta. **Settings:** Outpatient Geriatric Clinics at the Glenrose Rehabilitation Hospital (Glenrose) and Misericordia Community Hospital (Misericordia), Edmonton, Alberta. **Participants:** In 2014, at the Glenrose, we reviewed 200 randomly selected charts from patients aged 65 years and older seen in 2012-2013; in 2019, at the Misericordia, we reviewed 164 randomly selected charts from patients aged 65 years and older seen in 2016-2017. **Outcome measures:** Demographics, prevalence of PIMs, common PIMs used, PIMs addressed, total number of oral medications. **Results:** At the Glenrose, the mean age of patients was 79.4 years (SD=7.7 years). The mean number of medications per patient was 9.0 (SD=4.3). The prevalence of PIM use was 45% (90/200). Of the 90 patients who had PIMs, 46.7% (42/90) had at least one of their medications addressed as a result of the CGA. At the Misericordia, the mean age of patients was 81.8 years (SD=6.8 years). The mean number of medications per patient was 8.5 (SD=3.9). The prevalence of PIM use was 57.3% (94/164). Of the 94 patients who had PIMs, 47.9% (45/94) had at least one of their medications addressed as a result of the CGA. **Conclusions:** PIM use in the elderly is prevalent. There is a need for clinical and educational interventions to decrease PIMs use in this patient population.

558 Prognostication of Outcomes in COVID-19 Patients - Work-in-progress

YiQin Cheng*; Jeff Park; Manjot Sunner; Glenis Berroa, MD; Erika Tzivaki, MD; Parisa Airia, MD

Learning objective(s):

1. Describe the demographic and baseline characteristics of COVID-19 patients in Trillium Health Partner hospitals
2. Describe the host factors associated with hospital/ICU admission and ventilator use in COVID-19 patients

Description:

Context: The World Health Organization characterized COVID-19 as a pandemic on March 11, 2020. With the high number of cases and limited hospital resources, it is important to explore the host factors that could predict disease outcome and hospital utilization. **Objective:** To characterize various host factors (e.g. social, demographic, biochemical) associated with hospital/ICU admission and ventilator use in COVID-19 positive patients. **Design:** A prognostic cohort study. A certificate of approval has been received from Trillium Health Partner (THP) REB. **Setting:** This study took place at THP hospitals, including Credit Valley, Mississauga, and Queensway hospital. **Participants:** Baseline demographic and clinical characteristics of patients who tested positive for COVID-19 in March 2020 were analyzed. Data for the April cohort will be included for future analysis. **Main outcome measures:** The primary outcome measures were hospital admissions, ICU admissions, and ventilator use. Data analysis was conducted using Microsoft Excel 2016 MSO and IBM SPSS Statistics for Windows, Version 26.0 (IBM Corp., Armonk, N.Y., USA). **Results:** A total of 219 patients tested positive for COVID-19 and 16.0% (35/219) were admitted to hospital. The mean age of the admitted patients was 68.6 ± 16.9 and 51.4% (18/35) were female. The mean age of the non-admitted patients was 46.3 ± 15.9 ($p < 0.05$). Of the admitted patients, 20.6% (7/34) were admitted to the ICU and 14.7% (3/34) were intubated. Lymphocyte and neutrophil counts were not within normal range in 100% (7/7) and 57.1% (4/7) of patients admitted to the ICU compared to 44.4% (12/27) and 22.2% (6/27) in patients not admitted. **Conclusion:** Only a small proportion of patients that tested positive for COVID-19 necessitated care in hospital. Laboratory values at admission could be used as potential predictors of hospital course and disease outcome.

530 Quality Maternity Care? What do patients think?

Lisa Burke*, MD; Russell Dawe, MD, MDiv, CCFP; Susan Avery, MD, CCFP; Amanda Tzenov, MSc, MD, CCFP; Jessica Bishop, MSc, MD, CCFP; Amanda Pendergast, MD, CCFP, FCFP; Norah Duggan, MD, CCFP, FCFP

Learning objective(s):

1. Describe patient perceptions about the quality of care provided by Family Centered Maternity Care
2. Describe patient satisfaction with the care provided by Family Centered Maternity Care

Description:

Context: Family physicians (FP) are providing less low-risk obstetrics (LRO) care service across North America in recent years. Nevertheless, FPs offering LRO provide continuity of care which many pregnant women value, and FPs' clinical outcomes are similar to those of obstetricians. **Objective:** To explore the perceptions of women who have received care from the Family Centered Maternity Care (FCMC) program. **Design:** As part of a complete program evaluation of the FCMC program, key informant interviews with women who received care from the FCMC team were carried out. A thematic analysis was completed on the qualitative data using the Framework Analysis Approach. The codebook was developed by two authors independently coding three initial interview transcripts and discussing to achieve consensus. The remaining transcripts were coded by the primary author, with any new codes or unclear passages being reviewed in duplicate to ensure consensus. **Setting:** Telephone interviews in St. John's, Newfoundland and Labrador. **Participants:** Women who received care from the FCMC group from July 1, 2017 to June 30, 2018. Thirteen interviews were completed. **Main outcome measures:** Perceptions of women regarding the quality of care received from the FCMC team and comparison to

other models of care. **Findings:** Themes clustered around the overarching categories of FCMC qualities, services provided, continuity of care, patient satisfaction, and other services/providers. Overall, patients felt the FCMC provided a high level of support and encouragement that may not exist in other models of care. This occurred while maintaining equivalent levels of perceived medical expertise and safety for low-risk pregnancies, deliveries, and newborn care. **Conclusion:** Overall, women reported positive perceptions about the quality of care provided by the FCMC program. This project will eventually be integrated with other data sources as part of the entire FCMC program evaluation.

458 Remote Virtual in situ Simulation for Education

Monika Bilic*, HBSc; Farah Jazuli, MD, MSc; Erich Hanel MSc, MB, BAO, CCFP (EM)

Learning objective(s):

1. Describe the use of virtual methods to enhance in situ simulation for medical education
2. Describe challenges to use of traditional in situ simulation during a pandemic

Description:

Context: Previous work has demonstrated the utility of in situ simulation (ISS) to enhance medical education. The use of ISS for education during the unique constraints of a pandemic (including physical distancing) has not been addressed. To our knowledge, our solution, which utilized remote video-based learning, has not been previously used for ISS. **Objective:** To create virtual ISS used remotely for residency education. **Design/setting:** The multidisciplinary simulation team at a high-volume emergency department (ED) in Hamilton, Ontario designed a case of respiratory failure secondary to COVID-19. This ISS was carried out in the ED with individuals who were on shift, and was video-recorded. This was unrehearsed and executed in real-time. Afterward, small groups of residents met via videoconference during their academic half-day, and viewed the video together with facilitation by an educator. The residents then debriefed, discussing how the actions in the video compared to current recommendations and their own personal experiences. An electronic survey was distributed to participants to allow anonymous feedback and gauge efficacy of the process. **Findings:** Based on survey results, 62% of residents reported increased confidence in the management of respiratory failure secondary to COVID-19 following the simulation session. Residents also reported that through this method, they felt involved in the COVID-19 pandemic despite being clinically restricted in participating in COVID-19 patient care. **Conclusions:** During the COVID-19 pandemic, this use of remote video ISS for education allowed residents to discuss and familiarize themselves with protocols and procedures in the face of rapidly evolving recommendations. It was used as an education tool in a time with limited resources (such as personal protective equipment) and allowed for physical distancing measures. In the future, this method could allow for increased participation in in situ simulation without increasing resource use, removing barriers of geography, while fostering a safe learning environment.

502 Resident-Supervisor Discussion Groups on Prescriptions and Abnormal Investigation Results

Audrey Dubé*, MD, PhD, CCMF; Myriam Cloutier, MD; Geneviève Brassard, MD, CCMF; Chelsea LeFort, MD, CCMF; Joanie Rinfret, MD, CCMF; Benoit Heppell, MD, MSc, CCMF

Learning objective(s):

1. Recognize the benefits of a collaborative and adaptative educational activity for family medicine residents

Description:

Context: One of the important characteristics in the training of residents in family medicine units is that from the first day of their residency, they become the primary physician of approximately one hundred patients. This situation is similar to new family doctors who accept a patient case load. Consequently, they must learn quickly how to manage investigation results, as well as the renewal of prescriptions.

Objective: The management strategies of abnormal investigation results and prescriptions vary among supervisors. Through these different models, the residents must find their own way of doing such management. To develop their decision-making processes, a new and dynamic teaching activity has been chosen. **Description of the innovation:** Optional workshops have been organized on a weekly basis. These thirty minute teaching activities aim to discuss the management of a specific investigation result and related prescription renewal. To allow residents from external sites to participate, the activity was also held in a video conferencing format. To ensure the relevance of the activity, the subjects were selected from a constantly updated list, established by the residents and adapted to hot topics.

Outcome measurements: The level of knowledge before the workshops was assessed with short answer questions and the results were compiled anonymously. Participation and satisfaction levels were monitored during those activities by a survey approach. **Results:** This new collaborative adaptative activity was very popular in our resident cohort. The flexible format was easy to integrate in the cursus and allowed the discussion of hot topic like COVID-19. Interestingly, the activity was even led independently by the resident during the crisis since supervisors had difficulties to maintain its organization. **Conclusions:** We demonstrated the positive impact of this new educational activity and strongly encouraged other family medicine teaching units to consider its integration in their cursus. Indeed, it brings a high satisfaction degree for both residents and professors, it is flexible and easily prepared.

468 Safe Supply: A harm reduction approach

Austin Elliott*, BScH; Katelyn Inch; Brenna Velker, MD, PhD, CCFP

Learning objective(s):

1. Assess the efficacy of oral hydromorphone-hydrochloride as a harm reduction strategy amongst PWID using opioids

Description:

Context: Previous literature has demonstrated that a safe supply of injectable hydromorphone-hydrochloride may be an effective harm-reduction strategy for persons who inject opioids. **Objective:** We aimed to assess the efficacy of oral hydromorphone-hydrochloride as a harm reduction strategy amongst PWID using opioids in London, Ontario. **Design:** A longitudinal program followed 20 participants from October 2018-February 2020. Participants were seen in 1-2-week intervals and received weekly dispensed hydromorphone-hydrochloride (immediate or extended release). At each visit, participants underwent a urine drug screen (UDS) and completed a survey about their substance use and social behaviours. This project does not require REB approval according to the policy of University of Western Ontario REB regarding program evaluation studies. **Setting:** All encounters took

place at a family physician's office in London, Ontario. **Participants:** Inclusion criteria included opioid use consistent with opioid use disorder (DSM 5) during the past 12 months, self-reported regular illicit drug use with positive UDS for opioids, previous unsuccessful methadone maintenance therapy (MMT), buprenorphine/naloxone or disinterest in attempting MMT or buprenorphine/naloxone. **Main outcome measures:** The primary outcomes were measured as a proportion of total participants over time. These included self-reported fentanyl and intravenous drug use (IVDU), buprenorphine/naloxone use, UDS analysis, housing, online sex work, street sex work and crime. **Results/findings:** Time-trend analysis revealed a significant decrease in self-reported IVDU ($= -0.65$, $p < 0.0001$) and an increase in buprenorphine/naloxone use ($= 0.68$, $p < 0.0001$). Regarding social parameters, there was a significant increase in housing ($= 0.71$, $p < 0.00001$) and decrease in street sex work ($= -0.52$, $p < 0.01$). There was no significant change in online sex work, crime, or UDS fentanyl over the program period. **Conclusion:** Our pilot program highlights the potential of safe supply programs as a harm reduction strategy, while introducing important limitations. Future improvements to this program may provide further insight by assessing fentanyl use in a quantitative manner.

551 Skin Cancer Prevention and Early Detection in Saskatchewan - Work in progress

Zoë Phillips*, MPH; Nicole Braun, MPH; Rachel Asiniwasis, MD, FRCPC

Learning objective(s):

1. Appreciate the importance of multidisciplinary collaboration in effectively advancing skin cancer prevention and early detection
2. Adapt tools to local contexts and target audiences to effect knowledge uptake and behaviour change

Description:

Advancing skin cancer prevention and early detection in a provincially localized context: the Saskatchewan experience. **Context:** Skin cancer is one of the most common forms of cancer, and also one of the most preventable. Incidence is increasing annually; in Saskatchewan each year approximately 3300 cases of non-melanoma skin cancer and 180 new cases of melanoma are diagnosed, causing burden on patients and the health system. Saskatchewan experiences amongst the most hours of sunshine of the provinces, and also hosts a large proportion of populations with increased risk exposures such as outdoor workers. Advancing skin cancer prevention and early detection requires appropriate education and support, and material that is adapted to local contexts and target audiences is critical in advancing and sustaining knowledge uptake and behaviour change. **Objective:** 1. To develop provincially relevant educational resources for medical students, residents, family physicians, and patients; 2. To describe the iterative approach to multi-stakeholder engagement in the development of provincially relevant materials on skin cancer. **Design:** Two types of resources are developed: 1. An educational document for medical students, residents, and family physicians; 2. Patient brochures adapted for target populations in Saskatchewan. **Participants:** Stakeholders including family physicians, dermatologists, dermatology residents, medical students, and the Sun Smart Saskatchewan coalition. **Main outcome measures:** 1. Development of an educational document on skin cancer provincial epidemiology, resources, risk factors, prevention, and clinical presentation; 2. Development of provincially targeted patient educational materials for primary care environments; 3. Development of indicators to evaluate knowledge use and utility of materials. **Results/findings:** A description of the

collaborative process and development of materials will be shared. **Conclusion:** Development of effective tools for healthcare practitioners and patients requires interdisciplinary engagement of both knowledge producers and users; this collaboration is critical in effectively advancing skin cancer prevention and early detection. Results will be used to inform targeted strategies to reduce skin cancer incidence and morbidity in Saskatchewan.

545 Specialist Consultation in Manitoba: Patient perspectives

Andrea Wilson*, MD, MPH

Learning objective(s):

1. Compare the potential benefits of eConsult to traditional specialist referral
2. Recognize the barriers experienced by patients when a traditional referral is initiated

Description:

Objective: To explore patient perspectives of a novel specialist consultation process, eConsult, compared to the traditional consultation process. **Design:** Convenience sampling was used to identify participants from three clinic waiting rooms in Winnipeg. A mixed methods analysis, including a quantitative survey and a qualitative semi-structured interview, was completed. Qualitative data were examined with a hermeneutic phenomenological approach. Ethics approval was obtained from the University of Manitoba Health Research Ethics Board (HREB). **Participants:** Eligibility criteria were that participants must be 18 years of age and able to communicate in English. Nineteen participants agreed to complete the questionnaire while waiting for their appointments at Eaton Centre (n = 7), Northern Connections Medical Centre (NCMC) (n = 6), and Nine Circles Community Health Centre (Nine Circles) (n = 6). Fifteen participants further agreed to also participate in the one-on-one interview at Eaton Centre (n = 5), NCMC (n = 5), and Nine Circles (n = 5). Most (58%) of the participants were female, between the ages of 30 – 39 (63%) and were from Winnipeg (83%); participants self-identified across all Aboriginal categories (First Nations, Inuit, and Métis), as well as 'Black' and 'White/Caucasian.' **Results/findings:** Quantitative data found that most (74%) participants felt that eConsult would be an acceptable form of communication and most (68%) would request eConsult if it was available at their primary care provider's clinic. Qualitative data revealed three themes from patients' experience with traditional consultation: powerlessness, fear, and inefficiency. Two themes emerged from patients' perspective of eConsult: openness and improved communication. No themes were identified indicating concern over the sharing of personal information or a preference for face-to-face appointments with certain specialties. **Conclusion:** Patients support the utilization of eConsult by their primary care providers. This research supports the continued implementation of eConsult as a novel specialist consultation process to improve patient care in Manitoba.

528 Substance Use Screening During the COVID-19 Pandemic

William Mak*, MD; Susan Hollenberg, MD, MCFP

Learning objective(s):

1. Adapt family medicine screening practices to the situation posed by the current Covid-19 pandemic

2. Improve detection of substance use disorders during COVID-19 pandemic to mitigate concurrent public health crises
3. Identify barriers for quality improvement changes and explore methods for amelioration

Description:

Objective: To increase substance use disorder (SUD) screening during the COVID-19 pandemic as proactive harm reduction for concurrent public health crises. **Design:** Quality improvement (QI) project. **Setting:** Telemedicine visits at an urban academic family medicine clinic. **Participants:** Telemedicine encounters involving patients over the age of 18 from April 1, 2020 to May 8, 2020. **Intervention:** Telemedicine visits were newly established at the clinic as a response to the pandemic. Baseline levels of SUD screening were established from March 16 to 31, 2020. Recognizing the higher need for SUD screening to prevent concurrent public health crises, a QI project was implemented with two PDSA cycles. The first cycle (April 1 – 21, 2020) presented resident physicians with an efficient EMR template, which linked to the Tobacco, Alcohol, Prescription medication, and other Substance use Tool (TAPS), and provided resources for management. The second cycle (April 22 – May 8, 2020) focused SUD screening during proactive telemedicine visits for chronic disease management, such as hypertension and diabetes, and during visits for frail elderly patients. Qualitative and quantitative surveys were used to evaluate for weaknesses and improvements. **Results:** There were a total of 670 telemedicine appointments during the QI project period, with the baseline, Cycle 1, and Cycle 2 numbers being 187, 232, and 251 respectively. The number of telemedicine encounters with SUD screening was 5.8% at baseline. SUD screening increased to 16.3% and 28.7% for Cycle 1 and Cycle 2 respectively. These increases were statistically significant using the Pearson's chi-squared test with $p < 0.001$. **Conclusion:** The use of substances during the COVID-19 pandemic is expected to increase. Family physicians should implement novel, evidence-based methods of SUD screening to detect potential public health consequences. This has been demonstrated successfully through a short-term QI project using templates for efficiency and focused telemedicine encounters.

514 Surveying Referrers to a One-Time Psychiatric Consultation Service

Dorothy Yu*, MD; Jane Moody, MD, FRCPC; Alexander Singer, MB, BAO, BCh, CCFP;
Jitender Sareen, MD, FRCPC; Jennifer Hensel, MD, MSc, FRCPC

Learning objective(s):

1. Examine characteristics of family physicians who referred to a one-time psychiatric consultation service
2. Discuss satisfaction with a psychiatric one-time consultation service
3. Determine intervention opportunities to better support family physicians caring for patients with mental health needs

Description:

Objective: This study aimed to further understand and optimize primary care provider (PCP) referrals to a one-time psychiatric consultation service in Winnipeg by developing profiles of PCP referrers, assessing PCP satisfaction with the service, and determining intervention opportunities. **Participants:** We identified all family physicians who had made at least one referral in 2017 to the Centralized Psychiatric Consultation Service (N=403). **Main outcome measures:** We assessed referral frequency,

individual and practice characteristics, satisfaction, and subjective drivers of referral activity. We also assessed interest in a range of intervention opportunities to increase mental health knowledge and support. **Results:** Among all referrers, 287 (71.2%) were low referrers in 2017 (1 – 4 referrals), 65 (16.1%) were moderate referrers (5 – 9 referrals), and 51 (12.7%) were high referrers (≥ 10 referrals). 111 (27.5%) responded to the survey. Solo practice and no access to collaborative mental health services were significantly associated with being a high referrer. Referrers were least satisfied with wait times for the service. Higher referrers did not identify comfort as a driver of referrals; more indicated a high volume of patients with mental health needs, lack of access to alternative services and patient request. Overall, over 40% of respondents expressed interest in a mental health navigator, hard-copy resource information, and rapid access to consultation advice via telephone or electronic platform, with less interest in other proposed interventions. **Conclusion:** We found referrers to the Centralized Psychiatric Consultation Service to be clustered based on specific practice characteristics, as well as provider-patient factors. Overall, satisfaction with the service was fair and PCPs were not highly interested in a variety of proposed interventions. Future studies should explore how effective one-time consultation services are for solo-practicing PCPs and how best to support these and other PCPs in their management of patients with mental health needs.

561 Teaching Low-Risk Obstetrics: Current practices in Canadian residency

Kaitlyn Stanford*, MD, Norah Duggan, MD, CCFP, FCPC, Susan Avery, MD, CCFP, Russell Dawe, MD, CCFP, Amanda Tzenov, MD, CCFP

Learning objective(s):

1. Integrate teaching of low risk obstetrics into your Family Medicine Program

Description:

Context: Family Medicine Low-Risk Obstetrics (FM LRO) has been shown to result in similar health outcomes as that provided by obstetricians. Women and families who have received FM LRO care value the high level of continuity of care it provides throughout their pregnancy and delivery. In 2007, a national survey from the CPFC showed that only 11.1% of family physicians were offering intrapartum care, which is attributed to multiple factors. The Family Centred Maternity Care (FCMC) program at Memorial University exists to provide quality care while training family medicine residents to provide FM LRO care in order to help elevate the role of FM LRO in medicine. As part of an ongoing program evaluation of FCMC, a cross-Canada environmental scan has been completed. **Objective:** An environmental scan of Canadian family medicine residency programs was completed to characterize the FM LRO portion of their postgraduate training. **Design:** An online survey composed of 15 multiple choice and free text response questions was distributed to the program directors of the 17 family medicine residency programs in Canada to determine if and how FM LRO is incorporated into their programs. **Setting:** Online survey using Qualtrics was distributed via email invitation to all Canadian Family Medicine Residency Program Directors. **Results:** Obstetrical teaching in FM residency was carried out in various ways, with 65% having exposure during both years of residency, including 71% with a designated obstetrical block. Throughout this training 64% have simulations, 77% have procedural training, 89% have didactic lectures, and 56% partake in some other form of training. **Conclusion:** FM LRO is an important and rewarding component of family medicine, however training still presents some difficulty. This qualitative study will help to improve how FM LRO training is offered in residency.

555 The Cost-Effectiveness of Canadian Mammography-Based Breast Cancer Screening

Talha Tahir*; Melanie Mitsui Wong; Rabia Tahir; Michael Mitsui Wong

Learning objective(s):

1. Investigate the cost-effectiveness of breast cancer screening in the general population
2. Explore the cost-effectiveness of breast cancer screening in high risk populations

Description:

Context: The current literature on female breast cancer screening is largely focused on the health outcomes that result from screening. There is comparatively little data on the cost-effectiveness of the screening. **Objective:** To evaluate the cost-effectiveness of current mammography-based breast cancer screening recommendations within female Canadian populations. **Design:** Systematic review. Searches were performed within the PubMed, MEDLINE, Embase, Canadian Agency for Drugs and Technologies in Health (CADTH) and EconLit databases according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines to identify all studies published within the last 10 years that addressed mammography-based Canadian breast cancer screening. **Setting:** Canadian primary care clinics. **Participants:** Canadian females. **Main outcome measures:** Cost-effectiveness of breast cancer screening programs in Canadian female populations. **Results:** Of the 879 papers identified, seven studies met the inclusion criteria, four of which were applicable to average-risk Canadian women. The benefits of mortality reduction rose approximately linearly with costs, while costs were linearly dependent on the number of lifetime screens per woman. Moreover, triennial screening for average-risk women aged 50-69 years was found to be the most cost-effective in terms of cost per quality adjusted life year. The use of MRI in conjunction with mammography for women with the BRCA 1/2 mutation was found to be cost-effective, while annual mammography-based screening for women with dense breasts was found to be cost-ineffective. Lastly, in survivors of thoracic radiation-treated adolescent Hodgkin Lymphoma patients, annual mammography was found to be the most cost-effective method of breast cancer surveillance with little difference in life expectancy to annual MRI. **Conclusion:** In spite of the growing interest to enhance breast cancer screening programs, analyses of the cost-effectiveness of mammography-based screening within Canadian populations are scarcely reported and have heterogeneous methodologies. The existing data suggests that Canada's current policy to screen average-risk women aged 50-74 biennially or triennially is cost-effective.

448 The Impact of In-Office Handouts on HPV Vaccination

Natalie Ramsay, MD; Becky Jones*, BMSc

Learning objective(s):

1. Determine the effectiveness of in-office handouts on improving HPV vaccination rates for women aged 27-45
2. Identify other potential methods of increasing HPV vaccination rates

Description:

Context: Human Papilloma Virus (HPV) is the most common sexually transmitted infection in Canada. Vaccination is 90% effective at preventing the HPV subtypes most responsible for genital warts and HPV-related cancers. Results from the National Immunization Coverage Survey in 2014 found that only 8.3% of females aged 27-45 had received at least one dose of the HPV vaccine. This is far below the Canadian government's established goal of >85% vaccine uptake. **Objective:** To determine the effectiveness of in-office handouts on increasing HPV vaccination rates in women aged 27-45. **Design:** Quality Improvement. **Setting:** A family medicine practice with nine physicians in Grimsby, Ontario. **Participants:** All registered female patients aged 27-45 were included in this study. **Intervention:** All women between 27-45 who had a pap smear procedure were provided an HPV vaccination information handout to read. This served as both information for the patient as well as a reminder for the physician to discuss HPV vaccination. **Main outcome measures:** The aim of the project was to increase HPV vaccination rates to 5% of eligible patients by March 2020. **Results:** A total of 2001 patients met criteria for the study. Forty-six of these had documentation of at least one previous dose of HPV vaccination, yielding a total of 2.30% prior to intervention. At the six-month endpoint, 3 more women had been vaccinated, yielding a total of 49 women (2.45%) with at least one dose of HPV vaccination. **Conclusion:** Our intervention did not yield a significant improvement in HPV vaccination rates for our target population. Our post-intervention vaccination rate of 2.45% is still below the national average of 8.3%, and far below the goal of >85%. Other methods to increase uptake, such as EMR reminders and HPV posters in exam rooms, should be the focus of future studies.

420 Training Office-Based Point-of-Care Ultrasonography in Family Medicine

Alvin Yang*, MD; Obaidullah Khan, MD; Lawrence Yau, MD; Kyle Carter MD, CCFP (EM); Daniel Grushka, MSc, MD, CCFP (EM), FCFP

Learning objective(s):

1. Discuss the experience of providing office-focused point-of-care ultrasound training to Family Medicine residents in Canada
2. Discuss the rationale for including office-focused point-of-care ultrasound training in Canadian Family Medicine training curriculums

Description:

Objective: Provide introductory point-of-care ultrasound (POCUS) training for Family Medicine (FM) residents in a primary care office-based setting. **Design:** Two POCUS workshops providing experiential learning. **Setting:** Victoria Family Health Centre, London, Ontario from May 2019 to February 2020. **Participants:** Fifty-six PGY-1 and PGY-2 Western University FM residents with minimal POCUS experience. **Intervention:** Each POCUS workshop consisted of eight ultrasound stations involving assessments of abdominal aortic aneurysm, congestive heart failure, obstetrical health, cellulitis versus abscess, and joint effusion. Groups of 3-4 residents rotated through each 15-minute station. Healthy volunteers and animal tissues were utilized as POCUS models. At each station, an Independent Practice (IP)-certified FM physician or IP-certified FM resident provided instructions on identifying normal and abnormal sonographic findings. Each participant subsequently practiced under supervision. **Main outcome measures:** A pre- and post-workshop survey was administered to residents to measure workshop effectiveness and gather feedback. **Results:** Fifty-three (96%) residents reported good or excellent subjective POCUS knowledge after the workshop compared to 11 (22%) residents before. Fifty-

two (95%) residents reported good or excellent POCUS comfort level after the workshop compared to 10 (20%) residents before. Fifty (89%) residents were very satisfied with the workshop, 55 (98%) were interested in further training, and 45 (80%) believed training should be integrated into their residency curriculum. Forty-six (82%) residents would often or always use POCUS in future office practice if perceived barriers were removed, which included insufficient knowledge and equipment cost.

Conclusion: Residents reported improved POCUS knowledge and comfort after a workshop, stated interest in using POCUS for office-based assessments, and the majority believed training should be integrated into their curriculum. Introducing POCUS skills early on may kindle life-long interest and encourage clinical uptake in primary care practice. Future POCUS training in FM could be organized into domains of disease screening, patient management, and office procedures.

433 Using ACE Scores in Clinical Practice at WCC

Jessica Froehlich*, BSc; Kali Gartner, MD; Veronica McKinney, MD

Learning objective(s):

1. Identify perceived physician barriers and benefits to using Adverse Childhood Experiences in clinical practice
2. Explore how a process to identify Adverse Childhood Experiences could be integrated into primary care

Description:

Objective: We aimed to explore how a process to screen and identify Adverse Childhood Experiences (ACE) could be integrated into clinical practice used to foster resiliency among families and communities. **Design:** Researchers used a series of interview standardized questions before and after an education session on ACEs to explore comfort and ideas for using them in practice. Group discussions and individual interviews were conducted after the education session to develop themes for barriers and benefits of using ACEs. **Setting:** The educational session, group discussions, and individual interviews took place in Saskatoon at Westside Community Clinic. **Participants:** Inclusion criteria for this study included WCC staff, such as physicians, nurses, and counsellors who attended the education session. **Findings:** All participants felt clients in their workplace would have high ACE scores, but few felt comfortable integrating Trauma Informed Care and ACEs into their practice. Perceived benefits of using ACEs included empowering the client, knowledge for the clinician, and resource allocation and advocacy. Perceived barriers for using ACEs included risk of retraumatizing the client, irritating the client, and fostering the right relationship. **Conclusion:** The Westside Community Clinic staff who participated in this research felt that using ACE scores in clinical practice would be helpful to them and their patients or clients. However, the majority felt they would not be comfortable incorporating them. They expressed an interest in learning of what other clinics are doing to incorporate ACE scores and felt they should be building off this work to suit their needs. Framing ACE scores as an opportunity for building on strengths and fostering resilience by also incorporating positive and protective factors in the client's life is a direction they would like to further explore.

85 Using Macros to Improve Pneumococcal-23 Vaccination Rates

Allison Paige*, MD, CCFP

Learning objective(s):

1. Use QI methods to improve the rate of vaccination with pneumococcal-23 in patients with diabetes

Description:

Context: Immunization with pneumococcal-23 is an effective preventative measure against invasive pneumococcal disease. The pneumococcal-23 vaccine is recommended for adults age 65 years and older, as well as those age 2 and older with high-risk conditions. Diabetes is considered a high risk condition for acquiring invasive pneumococcal disease. **Objective:** To improve the rate of vaccination with pneumococcal-23 to 80% in adult patients with diabetes by July 1, 2019. **Design:** Quality Improvement Project. A Certificate of Approval has been received from the University of Manitoba Health Research Ethics Board. **Setting:** Kildonan Medical Centre, a family practice and resident teaching clinic in Winnipeg, MB. **Participants:** Adult patients with diabetes presenting to clinic who have not received the pneumococcal-23 vaccination. **Intervention:** When adult patients present to clinic for diabetes related appointments, health care providers are to use a predefined diabetes macro that outlines discussion points for the visit. The macro includes an automatically generated list of vaccinations previously received and a prompt for providers to offer vaccination to patients who had not received it. **Main outcome measure:** Vaccination rates for pneumococcal-23 in adult patients with diabetes calculated monthly. **Results/findings:** With the introduction of the diabetes macro, vaccination rates with pneumococcal-23 in adult patients with diabetes increased from 59.1% in November 2018 to 76.3% in February 2020. **Conclusion:** Introducing a simple, standardized macro for diabetes review visits increased the pneumococcal-23 vaccination rate by 17.2% over a 15 month period. However, we were unable to meet our overall target of an 80% vaccination rate by July 1, 2019. Nonetheless, the clinic immunization rates continue to increase with the implementation of the macro into standard clinic practice. Overall, the use of a macro as demonstrated in this quality improvement project is promising and could be similarly applied in other clinics and/or other medical conditions.

539 Validating a Preventive Care Decision Support Tool - Work-in-progress

Scott Laing*, MD; Sharon Johnston, LLM, MD, FCFP

Learning objective(s):

1. Understand that EMR data can be reliably and automatically extracted for clinical usage
2. Appreciate the value that automatically extracted data can provide clinicians for decision support

Description:

Context: Preventive care can reduce patient morbidity and mortality; however, providers do not have enough time to address all preventive care recommendations. Therefore, providers need better tools to efficiently support preventive care delivery. **Objective:** To develop a tool that allows providers to rapidly assess patient preventive care data. **Design:** A pre-/post-implementation study of a new preventive care including quantitative and qualitative measures. **Setting:** Three outpatient, primary care clinics in Ottawa Ontario. The study will run for 12 months and includes both pre- and post-implementation phases. **Population studied:** All providers in the three clinics will have access to the tool, however only consenting providers patient records will be included in the analysis. Consenting providers will be

surveyed on their experience using the tool. Patients having periodic health exams will be invited to participate in the experience survey. **Intervention:** The new preventive care tool will be implemented in the electronic medical record, which automatically collects patient preventive care data and provides a functional summary for the provider. **Main outcome measures:** Primary outcome is the percentage of patients up to date for age and sex appropriate preventive care. Secondary outcomes are the patient and provider reported experience pre- and post-implementation. **Results:** In progress – expected to increase percentage of patients up to date for preventive care and improve experience of care delivery for patients and providers. **Conclusion:** Electronic medical records contain valuable information that providers require for preventive care. Tools can be developed to collect this information and generate a summary for providers to use at point-of-care for clinical decision support. This study is a work in progress. We anticipate that this tool will increase the percentage of patients up to date on preventive care and improve provider and patient experience of care delivery.

435 Wait Times for Specialist Consultation in Manitoba

Andrea Wilson*, MD, MPH

Learning objective(s):

1. Recognize time to consultation as a greater barrier experienced by patients with traditional referrals
2. Compare wait times associated with traditional referrals versus novel consultation services utilizing newer information technology

Description:

Objectives: (1) To examine average wait times associated with the traditional referral process at one primary care centre in Winnipeg versus a novel consultation service, eConsult, in Manitoba. (2) To compare the traditional consultation process to eConsults by specialty. (3) Provide data for continuous quality improvement planning and evaluation that specifically address current wait times to specialist consultation. **Design and setting:** Chart audit of the traditional referral process at ACCESS – Downtown versus data from the provincial database of eConsults between December 2018 – 2019. **Participants:** All (N = 105) charts containing specialist referrals for one team (three primary care physicians) were audited from the ACCESS – Downtown EMR over one year. The average age of patients was 45.7 years (SD = 20.2). The youngest patient was 9 months of age at the time of referral and the oldest patient was 89 years. Most (N = 68, 65%) were female. **Main outcome measure:** Overall, traditional consultation resulted in significantly longer wait times for patients (M = 113.73 days, SD = 61.73 days) compared to eConsults (M = 4.47 days, SD = 4.31 days, $t(14) = 6.8$, $p < .001$). Secondary results: surgical specialties were most likely to be associated with incomplete traditional referrals. Across all specialties, eConsult was associated with significantly shorter wait times. **Conclusion:** eConsult offers a novel information technology platform that has the potential to improve patient access to specialists and reduce wait times in Manitoba. Continuous quality improvement will require ongoing program planning and evaluation processes to optimize health care quality.

517 What's Best for Breast?: Improving shared decision-making

Learning objective(s):

1. Identify common barriers to shared decision making conversations with patients
2. Consider methods to teach shared decision making skills to clinicians as part of medical education

Description:

Objective: This project aims to impact primary care provider (PCP) behaviour regarding shared decision-making (SDM) around breast cancer screening. **Methods:** This is an applied knowledge translation project. A review of the relevant literature and PCP survey were used to identify local barriers to SDM at Stonechurch Family Health Centre. The Com-B model was used to map local barriers to theory based interventions. **Intervention:** A didactic and interactive workshop was developed with a stepwise approach to SDM for breast cancer screening. Decision support tools for the 2018 update on breast cancer screening provided by the Canadian Task Force served as the basis for practicing SDM. **Setting:** Stonechurch Family Health Centre, McMaster University, Department of Family Medicine Hamilton, ON. **Participants:** SFHC PCPs, including physicians, nurse practitioners, physician assistants, and residents (N=16). **Intervention:** The primary intervention was a workshop designed to improve the PCP skills in core SDM competencies, involving didactic and interactive components. **Main outcome measures:** Identified local barriers to SDM main outcomes were lack of clinician confidence, knowledge of benefits and harms of breast cancer screening, awareness and uptake of decision-making support tools. The SDM-Q-Doc validated questionnaire was used to measure extent of perceived patient involvement in the SDM process. The SURE test was used to evaluate perceived decisional conflict post SDM processes. **Findings:** Following workshop completion, a significant increase was observed in HCP confidence ($p=0.002$), understanding of benefits and harms of screening ($p=0.005$), and use of clinical decision-making tools ($p<0.001$). Perceived decisional conflict was also decreased ($p<0.001$). **Conclusion:** A theory based workshop informed by local barriers to SDM among PCPs can increase confidence and clinical skills involved in the emerging core competency of SDM. Future use of this teaching workshop will be incorporated into family medicine residency curriculum at McMaster University.

459 Workplace Learning in Faculty Development for Family Medicine

Cathy Huilin Lu*; Viola Antao, MD, MSc

Learning objective(s):

1. Describe elements of workplace learning for faculty development programs
2. Apply workplace learning methods in planning activities for faculty development programs

Description:

Background: Clinical teachers face the challenging task handling multiple responsibilities of providing care while supervising medical learners, often without adequate training. As such, faculty development (FD) programs aiming to train clinical teachers are crucial. Basics for New Faculty (Basics) is one such accredited program to support teachers of family medicine learners at the University of Toronto's Department of Family and Community Medicine. FD activities have traditionally involved formal

workshop-based methods; however, recent studies suggest that informal learning methods involving the clinical workplace have an important role in professional development. **Objectives:** This study aimed to review the current Basics curriculum for potential modifications based on literature on workplace learning, and provide recommendations to further improve the experience and learning for program participants. **Methods:** A literature search was conducted to identify methods of incorporating workplace learning for FD programs for clinical teachers. Qualitative evaluations collected from participants of the 2018-19 Basics program and materials for the 2019-20 Basics curriculum were reviewed to identify areas where workplace learning activities could be included. **Results:** Important elements of workplace learning to incorporate in FD programs were identified: 1) Learning from peers or mentors in the workplace, 2) Being observed by peers or mentors in the workplace (Peer Observation of Teaching), and 3) Usage of the 360-degree/multi-source feedback model. Recommendations for activities were made based on these findings. Elements of workplace learning were integrated into the 2019-20 iteration of the Basics for New Faculty Program. **Conclusion:** This study's findings and recommendations will help inform the development of the Basics program and other FD programs, and promote the incorporation of workplace learning to enhance knowledge translation and mobilization for clinical teachers.

Besrou Posters

569 Predictive Value of Mean Platelet Volume in Unstable Angina

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Description:

Background and purpose: Unstable angina (UA) constitutes a clinical manifestation of acute coronary syndrome (ACS). In the absence of ST-segment elevation and positive troponin, the prompt invasive diagnostics procedures of UA remain challenging, leaving many patients undiagnosed and untreated. Exploring an effective early predictor of UA is essential to identify the suspected UA patients. Platelet plays a pivotal role in ACS. Mean platelet volume (MPV) is an indicator of platelet activation. In addition, platelet distribution width (PDW) is linked to its activity more accurately than platelet count. There have been studies about the association between ACS and MPV. However, the relationship between the indicators of platelet activation and UA is poorly understood. We aim to explore the predictive value of MPV and other platelet indices for UA. **Methods:** In this observational study, we recruited inpatients admitted to Shanghai East Hospital between October 2018 and March 2019. Suspicious UA Patients with chest pain underwent coronary angiography (CAG) were enrolled consecutively. We collected their clinical data, blood tests, cardiovascular images. Comparisons of differences among two groups was using Student's t-test and non-parametric Mann–Whitney U test. Multivariate logistic regression analysis was used to analyze the value of different characteristics as independent risk factors of UA. ROC curve analysis was used to determine the optimum cut-off of platelet indices in UA patients. $p < 0.05$ was statistically significant. **Results:** A total of 103 patients were stratified into UA group ($n=78$) and non-UA group ($n=25$) based on CAG results. UA patients had higher levels of platelet indices compared to those who were not. MPV and PDW were independent predictors of UA. AUC of MPV and PDW in UA diagnosis was 0.771 and 0.734 respectively, the optimal cut-off point was 10.55 fL and 11.55%, with high sensitivity and specialty. **Conclusions:** UA patients had higher levels of platelet indices compared to

non-UA patients. MPV and PDW can be utilized as independent predictors for early diagnosis of suspicious UA patients who have acute chest pain.

571 Managing an Epidemic of Fear: Worry during the COVID-19 pandemic in Kenya and Canada

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Dr. Monica Kidd*, Siksika Health Services and South Health Maternity and Wellness, Calgary

Description:

Context: The COVID-19 pandemic has placed major demands on individual and collective mental health around the world, including that of family physicians. Dr. Henry Owuor is a family physician at a level 4 hospital in rural Western Kenya who works integrating mental health care into primary care. Dr. Monica Kidd is a family physician working at a multidisciplinary health care clinic in the Blackfoot Confederacy of southern Alberta, and also providing prenatal and intrapartum care in a group practice setting in Calgary. **PIVOT points:** Both of our practices were profoundly affected by the pandemic. Due to lockdowns in both countries, our patients had to wait longer to see us, and anxiety was common. Patients had many unanswerable questions about the evolving global scenario and what it might mean for their futures. Because many diagnostic and surgical services were suspended, patients had to wait for indefinite periods to resolve their health concerns. Virtual visits were widely adopted in Canada in an attempt to reach isolated patients, but not in Kenya. **Lessons learned:** While virtual care provided access to basic care when face-to-face interactions were difficult or not recommended, it was not universally accessible for people in rural areas and those otherwise lacking to phones and computers; nor did virtual visits provide the same opportunity to explore sensitive matters or perform physical exams. Health care providers in both settings struggled to provide reassurance and guidance to patients while negotiating uncertainty in their own lives during a time when no community in the world was left unaffected. Transparent contingency planning from medical and political leaders helped physicians in their work; sudden changes of policies were destabilizing. **Conclusions:** While the ongoing COVID-19 pandemic has demanded innovation from primary care providers in Kenya and Canada, it has increased anxiety among both primary care patients and health care providers, and presents major challenges to providing patients timely and effective mental health care.

572 Informality in Healthcare Provision in Urban Bangladesh: Stark realities and the imperative for innovations in health professional training

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Description:

Background: Responding to concerns about the fragmented and outdated state of medical education worldwide, the 2010 Lancet Commission on Health Professional Education called for major reform in the training of doctors and other healthcare professionals for the 21st century. Taking stock of the Commission's impact 10 years later, one blind spot was its failure to address the realities of the massive informal healthcare sector which acts as the de-facto backbone of the primary care system in many LMICs. This paper describes the realities of informality in urban healthcare in Bangladesh and argues for the inclusion of the informal healthcare sector in health professional education given its size and importance to the urban poor. **Methods:** Drawing on a suite of research studies in three cities in Bangladesh, we illustrate the scale of the informal healthcare sector using geospatial maps, survey data describing the chronic health seeking behaviour of the urban poor, and in-depth interviews that document the challenges that private sector providers face in delivering quality services. **Findings:** Mapping data indicate the massive size, diverse modalities and locations of the informal healthcare sector, and in particular, its proximity to urban informal settlements. Comprised of drug sellers, traditional healers, and private practitioners often lacking formal qualifications or necessary training, the informal health sector disproportionately constitutes the frontline services of the urban poor, irrespective of their quality, appropriateness or cost. Qualitative interviews with both formal and informal private sector providers suggest potential entry points for innovations in medical training that respond to perceived needs around quality improvement. At the same time, data on the chronic health needs of the working poor suggest a particular focus on training in NCD prevention and treatment, given the massive disease burden that NCDs represent, and the limited provision of public primary healthcare services. **Conclusions:** Health professional education must embrace the realities of the massive informal private sector in urban LMIC contexts, and prioritize the development of tools and training for informal providers to: 1) increase capacity in the areas of health promotion and disease prevention, 2) improve quality, and 2) reduce harmful or unnecessary treatment. A particular emphasis on the growing burden of NCDs is recommended.

573 How Should Faculties of Medicine Engage Community?

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Description:

Background: Socially accountable faculties of medicine (FoMs) recognize their responsibility to address the priorities of the communities they serve. However, FoMs must collaborate with the community if these priorities are to be identified and acted upon effectively. This community engagement is a vital, but often ambiguous and inconsistent component of social accountability. Therefore, we have conducted a scoping review to identify practical guidelines for how FoMs should engage community partners. **Objectives:** To identify articles describing how FoMs engage their communities and synthesize existing knowledge to provide practical recommendations. **Methods:** We searched PubMed and Scopus databases for articles describing projects, programs, or partnerships involving FoMs and community representatives. Descriptive information was extracted, analyzed thematically, and reviewed by content experts and community partners. **Results:** 1200 articles were initially identified, 40 of which met

eligibility criteria and were ultimately included. Analysis revealed three overarching themes. First, 5 recommendations centered on “Partners,” providing suggestions for who FoMs should engage as community partners. E.g., community partners should reflect the communities the FoM serves; FoMs should partner with Indigenous communities; and community partners and the FoM should share common goals. Second, 14 recommendations (plus sub-themes) centered on “Partnerships,” guiding how FoMs can foster creative and authentic collaboration with community partners. E.g., partnerships should be purposeful and actively sustained; FoMs should credit community partners’ contribution to their collaborative work; and FoMs should critically reflect upon and address intrinsic biases that may impact their participation in partnerships. Third, 12 recommendations (plus sub-themes) centered on “Programs and Projects,” describing the nature and characteristics of such opportunities that facilitate true collaboration between FoMs and community. E.g., projects must be relevant to communities’ needs and values; community partners should be represented at each organizational level of the project; and project data and outcomes should be accessible to the community. **Conclusions:** Practical guidance enables FoMs to participate in authentic community partnerships with meaningful and reciprocal commitments. Despite limited published guidance on community engagement, the literature is rich with descriptions of community-FoM partnerships. We have identified clear recommendations for community engagement that are evidence-based, reflexive, and responsive.

574 Health Providers’ Access to Blood Pressure Machines at Point-of-Care in a Ugandan District: A mixed methods study

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Description:

Background: Early diagnosis and proper management of hypertension prevents a significant number of complications and premature deaths. However, in resource-variable settings, access to blood pressure machines may be limited. Therefore, we sought to understand access to blood pressure machines at the point of care in primary care facilities serving a high prevalence population in Eastern Uganda. **Methods:** Sequential explanatory mixed methods study using a structured facility checklist and key informant interviews with primary care providers who comprised of a doctor, clinical officers, nurses and midwives. The checklist collected data on availability and functionality of BP machines in each health facility. Key informant interviews explored health providers’ actions to access BP machines. The checklist was administered by the interviewer who also physically checked the availability and functionality of the machines. **Results:** Eighteen health facilities were studied. Majority (17/18) of health facilities reported at least one working BP machine. However, health providers said they have limited access to machines because they are not located at each point of care. Health providers report borrowing among themselves within their respective units or from other units within the facility. Some health providers said they purchase and bring their own BP machines to the health facilities or attempt to restore the functionality of broken ones. Health providers said they were motivated to search the clinic for BP machines for some patients but not others, based on their perception of the patient’s risk for

hypertension. **Conclusions:** Access to BP machines by health providers at the point of care within Tororo district primary care facilities is limited. As a result, screening for hypertension is selective based on health providers' perception of the patients' risk for hypertension. BP machines should be accessible at the point of care. BP machines should be regularly inspected, calibrated, and repaired. In order to minimize frequent breakdowns, health providers should be trained in proper use of BP machines.

575 Haitian Association of Family Physicians: Towards the advancement and promotion of excellence in Family Medicine in Haiti

Maxime Andre Tocel, MD; Rodney Destine, MD*; Linda Rimpel, MD; Ornella Sainterant, MD; Lesly Jean Charles, MD; Samuel Mondelus, MD; Kerling Israel, MD, MPH; Andre Michel Vulcain, MD; Emmanuel Fabrice Julceus, MD*

Executive Committee Members of the Haitian Association of Family Physicians (AHMEF), Haiti

Description:

Context: The Haitian Association of Family Physician (AHMEF) is a non-profit socio-professional organization composed of health professionals working in Family Medicine (FM) field. As a young specialty in Haiti, there was a need to establish our identity by forming a structured entity; Implement, coordinate and support FM initiatives; Provide assistance to Family Physicians (FP) for their professional development and Unify FP voices both in promoting their professional interests and the well-being of their communities. We initiate the first steps in 2003. The first acronym was Haitian Family Medicine Society (SHAMEF). We reaffirmed FM founding principles in the Haitian context, advocated for FM as a medical specialty and have been involved in humanitarian missions after major disasters. AHMEF was officially created in 2018. Our Mission is to promote the advancement of the specialty by supporting its members in the practice of the profession and by supporting research and training in FM to improve health of communities in Haiti.

Program objectives:

- Protect and promote high-quality practice of FM in Haiti by fostering biopsychosocial approach to address health problems.
- Encourage and support FP in their continuing education.
- Promote the specialty within the health system and ensure interaction with decision makers.
- Promote research and quality improvement activities.
- Defend members' professional interests.
- Contribute to the improvement of Haitian population health through targeted activities and advocacies.
- Facilitate better interaction between FP and other specialists.

Achievements:

- Development of regulations, statutes, policies and procedures
- Organization of Inaugural General Assembly & Election
- Establishment of the Executive Committee and sub-committees:
- Scientific and Academic
- Ethics and Mediation
- Public Relations and Communication
- Organization of regular monitoring and evaluation meetings
- Legal recognition of the Association

- Establishment of a regional committee
- Celebration of World Family Physicians Day
- Creation of an Action Plan and Budget (2018 - 2019)

Ongoing Activities: We continue advocacy and promotion of FM and FM Residency Programs; Create the Association official website; Establish relationships with local and international medical and professional associations; Organize scientific meetings, mobile clinics, support during national emergencies and disaster, etc. and Find human, material and financial resources to help the growth of the association.

576 Family Medicine Residency Remediation Program: Perspective of former remediated residents

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Description:

Background: The development of evidence based and effective remediation programs in post graduate medical education is an increasing area of research interest by educators, programs directors, programs and licensers. There is however, a dearth of research from the perspective of remediated residents about their experience. This study intends to contribute to remediation programs knowledge and evaluation in medical residencies. **Methods:** Qualitative study of 6 semi-structured interviews of practicing family physicians who underwent successful remediation. Super themes related to the historical flow of pre-residency, residency and post-residency periods were defined and submitted to intra and cross-case interpretative phenomenological analysis. **Results:** Desire for achievement and geographical life movements characterized the lived pre- residency period. Pre-existing isolation, disclosure and mental and serious health issues impacted the lived experience of remediation. Among various influencing factors, strong professionalism and identity issues were at play during residency and remediation lived experience. Resident-centered and supportive attitude of staff with contribution of wellness, psychological and external peer- support groups, were part of a positive remediation lived experience. Negative lived experience led to unproductivity in the utilization of the program aids and to an overall negative rating after residency. Positive post-remediation and residency period were characterized by sense of gaining control over life, of compassion for those in need, of gratefulness for having been helped and respect for the standards of profession. Unanticipated negative impacts were lived on licensing, early career trajectory orientation and financial gains and on access to academic career. **Discussion:** Remediation lived experience seems to align with findings of existing literature. Factors that interfere in the process of remediation have impact on deep personal levels, making it a challenging and potentially life transforming experience or profoundly negative and unresolved one, on the personal level. Unexpected consequences of the lived experience of the remediated were found, as the need for external supports to complement the internal existing programs supports and the debriefing positive effect of interviews. However, there was an observed lack of structured peer- support, related to a perceived faculty concern with confidentiality and a perceived understanding of the use of stretched resources. Factors related to personality and family of origin dynamics seems to be implicated in the likelihood of being indicated to remediation while doing residency in family medicine.

Conclusion: Insights of former trainees can be useful in designing and evaluating residencies and remediation programs. This study orients to the need of further studying the place deserved to structured peer-support, as oriented by existing literature; the licensing, early and long-term effect of remediation on financial and career orientation issues, as well as the factors related to personality and family of origin risk factors that may be implicated in the indication of remediation during post-graduate medical education studies.

577 Evolving with COVID-19: Pivoting to a new paradigm in medical education

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Description:

Context: In the early months of 2020, COVID-19 began as a local respiratory illness that has since spread around the world creating a pandemic that has not been experienced over a century. The rate of infection and its associated morbidity and mortality has led to the need for physical distancing with a profound effect on medical education. **Undergraduate Medical Education:** Undergraduate medical educators have had to revise curriculum in order for them to be delivered virtually along with adaptations required for assessments and evaluations. New methods of teaching had to be created to support clinical skills acquisition amid the reduction in the opportunities for traditional bedside teaching. High stakes evaluation and decision around graduation of final year students were challenged and different paths were taken in different countries. **Postgraduate Medical Education:** Postgraduate trainees have had to develop their clinical skills while having the added emotional stress caused by COVID-19. As hospitals and health systems rationalize limited health care resources, many elective procedural and surgical cases have been cancelled. Further, more stringent cleaning protocols have reduced the number of clinical encounters daily in clinic. This has led educators to become creative in ensuring that postgraduate trainees are exposed to a sufficiently broad scope of clinical experiences prior to completion of training. Telemedicine training has been a historical curricular debt in many places and has had to be quickly implemented according the widespread needs of patient remote assistance. Residency programs needed to review admission processes strongly affected by social distancing measures. **Continuing Medical Education:** Additionally, the rapid emergence of COVID-19 has challenged continuing medical education for providers around the world. In a very short time, family physicians have had to ensure that they were up to date on the latest management protocols for COVID-19 based on information that is ever evolving. Physician organizations have thus identified the need for a mechanism to deliver targeted continuing medical education, such as webinars, in a timely and succinct manner. **Conclusion:** As societies work to contain COVID-19, the lasting pivoting effects on medical education will be significant and with innovations that will be required in this new paradigm shift.

578 **Disability Inclusion in Nepal and Canada: Development of a community-informed educational seminar for healthcare professionals**

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Description:

Context: Both Canada and Nepal have ratified the UN Convention on the Rights of Persons with Disabilities which calls for inclusion of persons with disabilities (PwD) in society and access to inclusive healthcare. While Nepal has made advances in legislature and policy to promote the health of PwD, there remain many barriers to inclusive healthcare. This project was completed as a part of the Care of Underserved Populations Enhanced Skills Program at Memorial University of Newfoundland. **Purpose:** 1. To collaborate with Nepali non-governmental organizations (NGOs), community members and healthcare professionals (HCPs) for the purpose of identifying educational needs for HCPs regarding inclusive healthcare for PwD. 2. To develop an interactive seminar for HCPs for the purpose of engaging in cross-cultural discussion about disability inclusion and exploring Canadian strategies and resources that may be transferable or adaptable to the Nepali context. **Method:** Meetings were arranged with several NGOs focused on advocating or supporting PwD in Kathmandu, Nepal to discuss health inequities and barriers to inclusion in the healthcare system. Conversations with various HCPs and a literature search helped identify areas related to disability inclusion where HCPs may benefit from additional exposure. A 90-minute interactive seminar was developed based on identified needs. Presentation objectives included providing an overview of physical and developmental disabilities (DD), introducing recent Canadian primary care guidelines for adults with DD, and reviewing strategies to improve healthcare inclusivity. The workshop was presented to five groups of Nepali HCPs and program evaluation forms were provided. Approximately 320 HCPs attended the presentations and 110 forms were returned. Qualitative free text questions were analyzed for common themes.

Outcomes: Key themes identified from the presentation feedback:

1. Not making assumptions about PwD.
2. The importance of the consent process and involving PwD in decision-making.
3. The challenges of providing inclusive healthcare for PwD in Nepal and Canada.
4. A critical focus on language such as "differently-abled" in reference to PwD.

Conclusion: This presentation design allowed community needs to shape the educational content. Concepts about disability inclusivity were successfully conveyed, however feedback with a critical focus on language use around PwD suggests a need for further work in this area.

579 **Destination Excellence: A Faculty of Medicine's strategic approach to social accountability**

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Description:

Abstract: Introduction: Social accountability is a key value and accreditation standard for medical education on various levels and contexts. Memorial University of Newfoundland's (MUN) Faculty of Medicine has incorporated Social Accountability (SA) into education, service and research through its strategic plan, Destination Excellence. While SA has long been evident at MUN, the implementation of this strategic plan is intended to lend cohesion to those efforts and facilitate an institutional shift in culture towards SA. **Objective:** To describe one Faculty of Medicine's process of incorporating SA into its strategic plan and implementing that plan faculty-wide to create a unified, intentional approach to SA. **Process:** The Destination Excellence Implementation Steering Team (DEIST) leads the overall implementation of MUN's strategic plan. DEIST therefore recruited a trans-disciplinary Social Accountability Project Team to specifically develop and implement the SA components of Destination Excellence. Working groups were created within the Project Team to focus on specific tasks and deliverables when needed. An early working group developed a definition of SA, "Social accountability is our responsibility to work collaboratively with others to advance the health and well-being of all the communities we serve. We reflect social accountability through partnerships, leadership, education, research, clinical care, and everything else we do." We then adopted four hallmarks of SA: equity and justice; sustainability and cost effectiveness; partnerships and collaboration; and respectful learning environment. Further working groups developed a governance structure; established measurement processes, indicators, and templates for collection and curation of SA narratives; and conducted a scoping review to provide guidance on best practices in community engagement. Progress reports were shared with Destination Excellence Implementation Steering Team (DEIST) to ensure support across the faculty. This process led to creation of an Office of Social Accountability to be led by an Assistant Dean. **Conclusion:** Institutionalizing SA requires formal, visible support from administration and careful planning to ensure engagement from all units within the faculty. Explicitly including language around and a commitment to SA in a faculty of medicine's strategic plan is a critical step in this process.

580 Contribution of Family Medicine to Primary Health Care: The experience of India

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Description:

Background: The role of family medicine (FM) in strengthening primary health care (PHC) in low and middle-income countries has not been well studied. The first decades after implementation of FM training are a particularly important time to understand the role of early cohort graduates in shaping the future of FM in their countries and how this may strengthen PHC. India is an important middle-income country to study as FM is an emerging discipline where formal training was only first introduced three decades ago. Since then, FM programs have spread to 17 States with 48 accredited FM postgraduate training programs and several innovative distance-based training programs.

Aim: The primary aim is to explore how the implementation of FM training builds capacity in PHC systems in India and understand the relevance to other settings.

The following questions will be addressed:

1. What motivates individuals to choose to enter the field of FM at a time when it does not exist in their contexts?
2. What skills do graduates gain from postgraduate training in FM and how does this influence what activities and roles graduates participate in post FM training?
3. What are the potential mechanisms by which early cohort FM graduates influence the primary health care system?

Methods: An interpretive descriptive study of the first cohorts of graduates of postgraduate FM training in India was conducted. 20 early cohort graduates identified by purposeful and snowball sampling. In-person interviews were conducted, audiotaped, and transcribed between August and October 2019. Data from these interviews informed the development a national survey. The online cross-sectional survey of family physicians (graduates who completed postgraduate training in family medicine) is scheduled to be open for recruitment in Fall 2020. **Conclusions:** Participants will understand the Indian experience in the implementation of FM including its trajectory, barriers and facilitators, and the roles early cohorts played in its implementation. We hope attendees will draw parallels to their own context and walk away with tools on how to monitor the implementation process of FM development in their own country contexts.

581 Ciência & Saúde Coletiva Journal: Celebrating primary healthcare in the Ibero -American region

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Description:

The International Conference on Primary Health Care (PHC) was held by the WHO in Alma-Ata, Republic of Kazakhstan 40 years ago. It expressed the “need for urgent action by all governments, all those working in the fields of health and development, and the world community to promote the health of all peoples of the world.” The so-called “Alma-Ata Declaration” emphasizing PHC and stressing the need for a special focus in developing countries was reaffirmed at the Astana Conference in 2018. Ciência & Saúde Coletiva - the leading Brazilian Public Health Journal according to Google Metrics for Portuguese language publications - launched a special edition in 2020

https://www.scielo.br/scielo.php?script=sci_issuetoc&pid=1413-812320200004&lng=en&nrm=iso to mark this anniversary and reaffirm the importance of PHC. The intention was to discuss the fundamental importance of PHC in the Americas and Ibero-American regions, and to underline how primary care, the

clinical subset of PHC, plays a critical role at the intersection of clinical medicine and public health. The issue contained 21 articles on the topic, written by about 80 authors from nine countries (Brazil, Uruguay, Peru, Jamaica, Haiti, United States of America, Canada, Portugal and Spain). Most of the articles were written by family doctors, public health professionals, teachers and researchers. The themes were divided under three axes: (1) management, care models, assessment of PHC organization and work process of PHC teams; (2) professional training in PHC (internship, residency programs, graduate degrees); and (3) epidemiological studies, information systems, electronic medical records and use of technologies to expand access (telehealth/telemedicine for remote areas). The key lessons will be drawn out and put into context.

582 Chronic Disease Management During the COVID-19 Pandemic

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Description:

Context: The COVID-19 pandemic has had an impact on the delivery of all healthcare services as outpatient visits and investigations have been cancelled or shifted towards telemedicine to mitigate the risk of COVID-19 transmission. Prevention, diagnosis and treatment of chronic diseases, such as diabetes, cardiovascular diseases, chronic respiratory diseases and cancer, are central to family medicine. The objective of this poster is to share our experiences, as family physicians providing comprehensive primary care and urgent care in Canada and Saudi Arabia, regarding the lessons learned from chronic disease management during the pandemic. **PIVOT points:** In both Canada and Saudi Arabia, appointments were initially transformed into phone consultations, and overall volume of patients dropped significantly due to lockdown measures and fear of healthcare facilities. Patients presented to urgent care facilities with more severe illness decompensation than usual due to delays in seeking care. Other factors complicating chronic disease management include decreased physical activity, diet changes (especially during the fasting month of Ramadan in Saudi Arabia), financial difficulties from unemployment, lack of medications supply, poor health technology literacy and access in elderly and marginalized populations. **Lessons learned:** In this challenging context, leveraging health education principles, such as patient-centered care, shared decision making, patient empowerment, and health technology have become crucial to managing chronic diseases remotely. Most patients embraced learning to use new digital health tools regularly to communicate with healthcare providers and monitor their symptoms at home. Helping patients get access to blood pressure machines, glucometers, oximeters, and using videoconference instead of phone consultations were important facilitators to virtual care management. More has to be done however to equitably provide care to the elderly and marginalized populations in all settings as telemedicine is becoming an integral part of healthcare in the ongoing pandemic context. **Conclusion:** The pandemic has offered an opportunity for family physicians all around the world to enhance health education and further empower patients to manage chronic diseases and mitigate indirect consequences of COVID-19 on the healthcare system. It also catalyzed a digital health revolution with the integration of virtual tools to improve the care experience and efficiency for both providers and patients.

583 **Celebration of World Diabetes Day: Summary of activities in a Family Medicine Residency program in Haiti**

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Description:

Introduction: The International Diabetes Federation and the World Health Organization created World Diabetes Day (WDD) in 1991 (held on November 14th) to raise awareness and draw attention to the global burden of this disease. The objective of this study is to present a summary of three years of activities carried out as part of the celebration of WDD in the Family Medicine Residency Program (FMRP) at Saint Nicolas Hospital in Saint-Marc. **Method:** The FMRP has a non-communicable disease clinic that provides standardized care and group education sessions for patients with these conditions. It started celebrating WDD in 2016 and continued this initiative every year. The organizing team was composed of faculty, nurses, and FMRP residents. The targeted participants were diabetic patients followed in the Family Medicine Unit or in other departments like internal medicine and surgery. They are the one who were invited and who benefited the medical evaluation, other people in the hospital could just assist other activities. Activities included a medical evaluation, a demonstration of healthy behaviors, sharing experiences and lessons learned from diabetic patients and their families, and an award for diabetic patients' champions. Data generated by these activities were analyzed with descriptive statistics. **Result:** From 2016-2018, 384 diabetics attended the celebration, 86 in 2016, 87 in 2017 and 211 in 2018. Among them, 89.50% were women, 56.85% were between 45 and 64 years old, and 43.40% had a normal body mass index. Their mean blood glucose was 171.82 mg/dl (SD 76.61), their mean systolic and diastolic blood pressure was 140 mmHg (SD 21.60) and 85.72 mmHg (SD 13.09) respectively. In addition, 63.50% had foot abnormalities such as fungal infections, neuropathy, diabetic foot. 64.60% had abnormalities of the urine (UTI, proteinuria, glycosuria) and 92.75% had abnormal ophthalmological evaluations (cataract, glaucoma, retinopathy). Thirty-three participants benefit dental prophylaxis, 22 dental restoration, and 16 electrocardiograms. Twelve diabetics or their relatives shared their experience living with the disease, twenty received awards for their knowledge and their proper management of the pathology. **Conclusion:** The celebration of WDD at the FMRP has had growing success in terms of participation over the years. It was a learning process and a unique opportunity to involve the whole team to teach, learn, listen, honor, and educate diabetic patients. We were also able to detect and treat several complications related to diabetes that were found.

584 **A Logic Model for Besroun Café: Evaluating virtual connections (Work-in-progress)**

Françoise Guigné (Memorial University of Newfoundland, Canada)*;

Kenneth Yakubu (The George Institute, University of New South Wales, Australia & University of Jos, Nigeria);

Clayton Dyck (University of British Columbia, Canada); Russell Dawe (Memorial University of Newfoundland, Canada)

Description:

Context: At FMF Vancouver 2019, the CFPC's Besroul Centre launched the "Besroul Café", a regularly scheduled synchronous online platform for fostering capacity building of global family medicine education and training. Besroul Café was designed in collaboration between global Besroul partners and is a twelve-month pilot with our African colleagues. Participants provide feedback to guide the Besroul Café topic selection and facilitation format. The findings will be presented to the Café's advisory group to determine if this program should be expanded. **Objectives:** This program evaluation will assess how effectively the Besroul Café builds capacity in global family medicine education and training. **Design:** Taking a framework analysis approach, we will describe the Besroul Café's activities, outputs, and outcomes using a logic model and then complete an evaluation framework to guide a formative and summative evaluation of this program. Data sources will include feedback received from the pilot launch, from mid and end pilot surveys and informally through each Café debrief. **Setting:** Monthly virtual online platform. **Participants:** Email invitations were sent to African family physicians within the Besroul community. Some participants then invited colleagues. **Intervention:** The Besroul Café's activities, outputs and outcomes using a logic model will be evaluated. A complete evaluation framework will guide both formative and summative evaluation of this program. **Main outcome measures:** Key indicators to be used include satisfaction of participants; frequency of meetings attended; growth of attendance in new and returning participants; and learning needs identified and met. **Results:** Early data suggests Besroul Café observed both repeat and new participants; it was found to uniquely bridge French and English African participants and that topics met participant need. **Conclusion:** Preliminary data suggests that increased regular opportunity for creative international discussion and problem solving may strengthen Besroul partnerships, as well as increase capacity building and engagement in the domain of family medicine education for all stakeholders.

570 Perspectives in Multi-Disaster Preparedness From Indonesia and Canada (Work-in-progress)

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Description:

Context: COVID-19 has undoubtedly pushed us to reflect on disaster preparedness. It is however important to remember disasters rarely occur in isolation. Calamities such as epidemics are often intertwined with others, including natural disasters, armed conflicts or famine. Primary care providers therefore need to be prepared for multi-disaster situations. This poster focuses on lessons learned from primary care physicians in Aceh Jaya, Indonesia and Hamilton, Ontario. **PIVOT points:** Since early 2020, physicians in both Aceh Jaya and Hamilton had to quickly adapt their clinical care model in response to COVID-19. Measures were implemented to ensure the safety of patients and staff, new methods were developed to deliver care, and partnerships with broader support networks were strengthened. Interestingly, many structures developed in response to COVID-19 were modifications to existing ones, such as the response to annual floods in Indonesia. It is anticipated developing these structures will continue to be helpful in the future, such as the need to prepare for the advent of winter and flu season in conjunction with the pandemic in Canada. **Lessons learned:** In sharing perspectives from both

Indonesia and Canada, certain overall themes were elicited: 1) Primary care works as part of a larger network, often involving public health and the government, when responding to disasters. 2) Protocols developed and lessons learned when responding to one disaster are transferable to others. 3) There is an identified need for education in disaster-preparedness in primary care. **Conclusion:** The lessons learned in both Indonesia and Canada highlight the importance of being prepared to provide clinical care in multi-disaster situations. They also speak to the need for further knowledge advancement in this field.